UNITED STATES DEPARTMENT OF AGRICULTURE

FOOD AND NUTRITION SERVICE
ONLINE WIC EBT DEMONSTRATION

WASHINGTON STATE PROJECT
KEY OUTCOMES AND FEEDBACK REPORT

Final Version:
March 16, 2006

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1. EXECUTIVE SUMMARY

The Online WIC Electronic Benefits Transfer (EBT) Demonstration project was carried out as part of the United States Department of Agriculture (USDA) Food and Nutrition Service (FNS) Five-Year Plan for WIC EBT, which seeks to find affordable solutions for migrating WIC from a paper-based food benefit delivery system to EBT and to identify national model(s) by 2008. (*WIC Electronic Benefit Transfer (EBT) System Development, Implementation, and Expansion—5-year Plan,* January 2003).

The Online WIC EBT Demonstration Project sought out to test the feasibility of online technology first through a laboratory demonstration then for a small scale field demonstration.

The strategic path outlined by FNS proposed to test the viability of magnetic stripe online EBT technology as an alternative to existing smart card solutions developed under earlier EBT pilot projects. In support of this objective, FNS contracted with Information Systems Support, Inc. (ISS) for a WIC EBT "proof of principle" to test the feasibility of online EBT. The FNS Online WIC EBT Demonstration was designed to test an online, real time EBT solution in a laboratory setting and, if successful, to implement a small-scale demonstration in a retail setting.

A formal, independent evaluation of the Online Demonstration was not conducted due to the project's limited size and scope. Project staff did, however, collect data on the system's key features and performance as well as user feedback about the system. This report, which was written by MAXIMUS with support from Washington State, FNS and Stored Value Systems (SVS), summarizes and presents the key findings from the demonstration project.

1.1. Document Organization

This document is organized into to the following sections:

- Project Background & Objectives: Provides an overview of the project and the EBT system that was developed and deployed.
- Client Feedback: Provides the results of the client survey and client focus group session.
- Retailer Feedback: Provides an overview of the project by the project's Retail Manager as well as the results of the retailer survey and retailer staff interviews.
- Clinic Feedback: Provides the results of clinic staff survey and interviews.
- Washington State Feedback: Provides an overview of Washington State's experience participating in the project as well as the results of the State staff survey.

- Technology Perspective: Describes which system components worked well and which areas need further development and refinement.
- Project Statistics: Provides statistical data collected during the demonstration.

1.2. Data Collection

The primary criterion for determining the project's success was its ability to perform WIC EBT transactions in-lane using dial-up communications. Additional data were collected on the user experience and transaction times, although these were not defined objectives for the demonstration.

A significant amount of qualitative information was collected during the project, including feedback from clients, retailers, clinic staff, State staff and project team members though surveys and/or interviews. The focus of stakeholder data collection efforts was to capture information about:

As a secondary aspect of the evaluation, stakeholder input was gathered to provide qualitative data about the user experience and usability of the system.

- Overall opinion about the system;
- Satisfactory and unsatisfactory features;
- Specific problems and root causes; and
- Suggestions for future enhancements and changes.

The project also collected system transaction data and transaction timings to determine the length of average transactions and the amount of time spent communicating with the host. Baseline transaction times for paper transactions were also collected for comparison purposes.

1.3. Successes of the Demonstration

Overall, the main goal of the project—testing the feasibility of online, real time transactions in a retail setting—was met. The system successfully performed online WIC EBT transactions in-lane and the transactions were accurate and processed correctly. During the demonstration, the following activities occurred on a daily basis:

The system met the requirements of the demonstration. It was able to maintain accounts and provide benefit access to clients. Data was maintained correctly and transactions were able to be completed real-time, online over dial up a connection.

- The system successfully established accounts and benefits on the EBT host. The State's clinic system created accounts and issued benefits to participating clients and interfaced automatically with the EBT Host to transfer account information and issuance transactions. Once a client left the clinic with a magnetic-stripe card, WIC benefits were immediately available.
- Clients were able to purchase their WIC products in-lane at participating retailers using the stand-beside POS terminal provided for the demonstration. After items were scanned, the EBT host validated the purchase, denoted exceptions, and returned the message back to the POS in real-time.

- Automatic end of day reconciliation and settlement occurred, triggered by the EBT host. Reports were provided to the retailers and the State for reconciliation.

The demonstration also showed the ability of clients to use and manage benefits in their WIC EBT account. Overall, clients appeared to understand account balances and the co-mingling of individual participant benefits within a household.

1.4. Limitations of the Demonstration

Limitations of the demonstration resulted in some unintended outcomes. The use of stand-beside terminals in the participating stores was not a good fit for their standard lane operations. A small number of participants meant that cashiers had less practice using the terminal.

The demonstration project was not intended to be a full pilot test of the Online EBT system, and, as a result, several features of the design and implementation affected the project outcomes and user satisfaction. First, the demonstration project was of limited size and scope, consisting of only 300 households and 3 retail stores. As a result the costs and performance of the Online EBT system under the demonstration may not accurately reflect what would be expected if the system were more widely implemented. For example, the costs of operating a limited demonstration are not applicable for a larger rollout. In addition, because of the small number of EBT transactions under the demonstration, retailers noted that many cashiers did not perform enough transactions to become proficient in the use of the equipment.

Second, participating retail stores were selected based on their willingness to participate in the demonstration and their geographic location. The participating stores were all supermarkets with sophisticated electronic cash register (ECR) systems that support multiple tender types, including integrated electronic transactions (EBT, debit, credit) with high-speed connections. None of the retailers used stand-beside equipment for any electronic payment transactions outside of the WIC EBT demonstration. Consequently, a stand-beside system was not a “good fit” for these retail environments and the WIC EBT stand-beside dial-up terminals were cumbersome and slow in comparison to their normal operations. In a larger rollout, all three retailers would likely implement some kind of integration and not use the stand-beside terminal that was deployed for the demonstration.

Although the WIC EBT POS terminal met all of the project’s requirements some features were not built into the terminal because of the project’s limited scope and timeframe. These features might have improved the system’s overall performance and, consequently, the retailers’ perceptions and overall experience. These features included system diagnostic tools, the ability to manually adjust some configuration settings (such as a phone number), and an auto-download function of terminal software from the host.

For Washington State, one limitation was becoming involved in the project after the system design was complete and development was

underway. It should be noted; however, that many of the design decisions were made with the primary focus on testing POS in an online environment rather than integrating with a State system. Although Washington was not able to provide input into the design early in the process, the SVS development team was able to incorporate some changes requested by the State into the project plan while maintaining the approved system design. The State also had to make some decisions about which functions to integrate into their WIC certification system, Client Information Management System (CIMS). Although most functions were integrated, some were not due to time constraints or state business rules that did not necessarily synch with the EBT system design.

To reduce the burden on clinic staff, the State recommended restricting clients selected to participate based on several criteria. The State made the following suggestions for clinic staff to consider prior to moving a client on to EBT (only the first item was a requirement for participation).

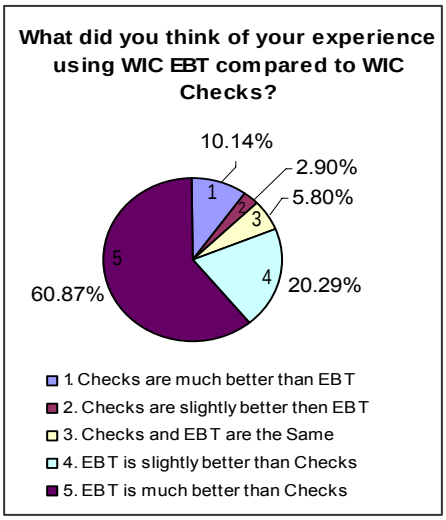
- Must be willing to shop at one of the WIC EBT stores;
- English speaking;
- Anticipate being able to stay in the local demonstration area (and within the same household);
- Should not have very young, formula-fed infants; and
- Available for Wednesday or Thursday WIC appointments.

After the system was implemented, operational changes allowed some flexibility in these selection criteria. For example the clinic expanded its EBT operations from two to five days so that clients were not limited to just Wednesday and Thursday appointments. The "very young, formula-fed infants" criteria only applied at the beginning of the project and was intended to avoid complicating the project's start-up with changes in the formula issued. The system could not readily accommodate formula changes if a formula benefits had already been purchased. Similarly, the "in the same household" suggestion addressed CIMS' inability to easily recover and transfer partially-redeemed EBT benefits. This excluded, for example, foster children from EBT. In addition to these recommendations, clinic staff members were also given the discretion to not select clients who might be difficult or have other personal problems that might limit their ability to participate in the EBT demonstration.

1.5. Stakeholder Feedback

Overall, stakeholders provided generally positive feedback. Various stakeholder groups liked the WIC EBT concept and expressed an interest in seeing EBT implemented on a larger scale in the State of Washington. Many stakeholders provided specific input about features that worked well during the demonstration and identified areas for change for future rollouts.

Clients cited the freedom the card provided as a major benefit. They were able to shop immediately after leaving the clinic and could buy items in their prescription as needed rather than purchasing all of the items issued on a WIC check at a single time. Most found the card easy to use and were comfortable receiving their benefits via EBT. Based on this limited demonstration, when asked to compare their WIC EBT experience to WIC checks, a majority of clients expressed a preference for WIC EBT (as depicted in the chart to the right).



Retailers were positive about the future for and potential of WIC EBT. In general, they expressed a need to improve the usability of the WIC EBT terminal or, most preferably, move toward integration. They appreciated their participation in the demonstration and took away many lessons learn.

Retail staff feedback from the WIC EBT demonstration was mixed, likely due to a variety of factors related to the project's overall limitations as well as the system performance/usability issues. Many retail staff thought WIC EBT was a great concept, but cited the need for additional improvements to the terminal before the system is rolled out on a larger scale.

The nature of a stand-beside terminal, which requires double scanning and key entry of prices, was not an ideal solution for any of the three participating stores. Cashiers were accustomed to high speed connectivity and frequently noted that the duplicative activities of double scanning and key entry of prices was time consuming and inefficient. Some cited transaction times as an issue, but it was not clear whether this was due to duplications from using a stand-beside terminal or the actual time to process the transaction on the EBT terminal or both. Most thought the WIC EBT card held a lot of advantages for the cardholders as well as for retailers. All agreed that integration would greatly improve the WIC EBT experience for the retailers.

Overall, clinic staff members were positive about the demonstration experience. Since WIC EBT was integrated into the certification system consistent with clinic operations, the clinic was able to maintain that same workflow for EBT and for paper checks. Some staff indicated that WIC EBT reduced appointment times for EBT clients.

Washington State's experience with the demonstration was also generally positive. The State gained experience implementing a WIC EBT system along with an understanding of what is needed for the system to be successful in their state. State staff reported that it was a valuable experience that provided a learning opportunity in hands-on operation of a WIC EBT system.

1.6. Summary of Findings

The demonstration project was a first step in determining the feasibility of online WIC EBT. Based on the findings of this analysis, the project successfully met the project's goal of demonstrating that WIC EBT transactions can be completed in a retail environment using dial-up communications.

Several of the issues encountered by users during the demonstration were not the result of the use of online technology, but were associated with the use of stand beside equipment. Participating retailers felt that integration of WIC EBT into their ECRs would resolve these issues.

As would be expected in a small demonstration of a new technology, some problems were encountered; although many of these were not necessarily the result of the online technology. Several of the problem areas cited by users were related to the use of stand-beside equipment and would occur in either an online or offline environment. These included factors such as double scanning and key entry of prices. Other related issues included difficulty pressing the buttons and convenience of the equipment location. A significant finding of the demonstration was that the retail environments included in this project require integration with the store's ECR for successful implementation.

The following list summarizes the general findings from the demonstration:

- The project successfully demonstrated that WIC EBT transactions can be performed real-time, online over a dial-up connection.
- Transaction times were adequate when no significant issues were encountered by the cashier during the transaction. Many of the longer transaction times were associated with cashier errors, but were intensified by some features of the terminal that were not user friendly. Improvements to the terminal and terminal interface could greatly reduce the occurrence of the types of errors and problems that were experienced by the cashiers.
- Enhancements should be made to the stand-beside terminal to:
  - Reduce or eliminate communication errors;
  - Improve time connecting to the host (particularly in dial-up mode);
  - Display or print items and prices that have been previously entered;
  - Allow an item or price that has previously entered to be edited by selecting from a list on the display;
  - Display a running count of items in addition to a running subtotal; and
  - Provide a more detailed description of denied Universal Product Codes (UPCs).

In the next phase, the system should be expanded upon to provide enhanced functionality and improved usability from the user perspective. The current system has many excellent features and can be used as a base system for future implementations.

- Future rollouts should consider other transaction modes that would provide immediate notification of denied items for unapproved UPCs and for items for which there is not sufficient balance.
- Clients generally liked the flexibility and ease of use of WIC EBT; many clients were already familiar with the Food Stamp EBT (QUEST) card. The majority of clients surveyed expressed a preference for WIC EBT over paper checks
- Clients reported that some cashiers had difficulties with transactions (specifically entering prices) which caused transactions to take longer.
- Retailers felt that transaction times must be improved through either an enhanced terminal interface and/or improved communications in order for online WIC EBT to be successful.
- Integration with store cash register systems could eliminate many of the problems cited with a stand-beside system that relies on slower dial-up telephone lines. Cashiers, managers, and bookkeepers agreed that an integrated solution, not a stand-beside system, was the preferred approach.
- Clinic staff generally liked WIC EBT and felt it improved clinic flow. They would like to see improved customer service for clients and have the ability to issue multi-month benefits via EBT.[1]
- The national food category/subcategory assignments were not always consistent with the Washington State food packages. In some cases, the specific UPC category/subcategory assignments could not accommodate the flexibility or choice that Washington provides to their clients in food packages (i.e., choice between infant cereal or regular cereal).
- According to Washington State Retailer Management staff, the amount of effort involved in retail and UPC management was greater than expected. Significant time was spent collecting UPCs and price information for setting up the UPC database and not-to-exceed amounts. Once the system was operational, more time than expected was spent maintaining the database.
- The WIC EBT receipt format needs to be enhanced to include benefit end dates. The State's benefit issuance methodology can cause some members of a household to not be in synch with their benefit period. This is not an issue with checks because each check is printed with specific begin and end use dates. In EBT benefits are commingled in the EBT account and the current

[1] The exclusion of multi-month issuance from the demonstration was a policy decision and not a system limitation.

receipt format did not accommodate the printing of benefit start and end dates.

1.7. Conclusions

The demonstration was an initial step in assessing the feasibility of online technology for WIC EBT. It successfully demonstrated that online transactions over a dial up connection are operationally feasible. This initial phase of the FNS Online WIC EBT Demonstration also provided an opportunity to identify areas in which enhancements and changes should be made to improve system and terminal operations as well as the overall experience of various stakeholders. This demonstration project was the first implementation of its kind and the project team used the demonstration to identify the areas in which enhancements should be made for future system implementation.

Future efforts should more fully test online technology on a larger scale. Information from the Washington demonstration indicates that the stand-beside WIC EBT terminal should be enhanced and or reconfigured to promote smoother, error free operation. Additionally, future implementations should also include retailer integration. All three retailers in this demonstration felt strongly that integration was needed to improve WIC EBT operations in their stores. Finally, because of the limited size of the Washington demonstration project, a cost analysis would not have provided meaningful results and was not undertaken as part of this project. Future efforts should be of a larger scope, including a greater number of clients, retail locations and clinics in order to evaluate the actual operating costs of an Online WIC EBT system.

2. PROJECT BACKGROUND & OBJECTIVES

The United States Department of Agriculture (USDA), Food and Nutrition Service (FNS), Special Supplemental Nutrition Program for Women, Infants and Children (WIC) contracted with Information Systems Support, Inc. (ISS) to develop an online WIC Electronic Benefits Transfer (EBT) system. The project, completed in November 2005, was a first step in determining the feasibility of the use of online transaction processing technologies for use in the WIC program.

In this project, FNS sought to determine whether an online, magnetic stripe card solution could successfully meet WIC EBT functional requirements. This project was to design, develop, test, and implement an online, real time WIC EBT system solution in a manner similar to the commercial infrastructure currently in place for debit, credit, and Food Stamp/cash EBT retail transactions. Further, the system was to be developed to test the feasibility of performing WIC EBT transactions using ISO 8583 and X9.93 standards in an online environment where all processing is performed on the EBT host system.

The main focus of the Online WIC EBT project was to determine if online transactions could be successfully completed during a six-month live demonstration in a grocery store setting using base level technology. The project required the use of a stand-beside point-of-sale (POS) terminal separate from the store's electronic cash register (ECR) system using dial-up connection over standard phone lines. The scope of the project was limited in size and focus as well as had a relatively short timeframe for implementation.

General guidelines in the development of any WIC EBT system were followed in designing the Online WIC EBT system implemented in the demonstration. These guidelines included the following:

- Ensure that participants are able to purchase the complete food package at their discretion, eliminating the risk of forfeiting foods, and that the transaction affords the participant dignity and convenience;
- Ensure that participants are able to purchase only WIC authorized foods, and that foods are not improperly substituted;
- Provide the WIC Program with data on the type, brand and cost of each food item, so that state agencies can better control food costs through informed food package decisions and justification or rebates such as infant formula;
- Ensure that WIC Participants are charged no more than the contract price or shelf price for food as other customers; and
- Enable the food retailer to complete the WIC transaction efficiently and properly.

2.1. Project Team

FNS procured the services of the ISS Team, which includes ISS acting as the prime contractor, and MAXIMUS and Stored Value Systems providing subcontractor support. The roles and responsibilities for of the partners in this project are as follows:

- **ISS**. ISS was responsible for contract management.
- **MAXIMUS**. MAXIMUS provided project management for the team and provided functional knowledge for the project. The MAXIMUS team confirmed user requirements; developed design and user documentation; planned and supported Functional Demonstration and Acceptance Testing; assisted with the pilot implementation; provided retailer management, supported operations and provided this report of the key outcomes and findings.
- **SVS.** SVS developed and operated the lab demonstration and field demonstration systems, including all components: the EBT host system; the EBT clinic system; and the retail point of sale systems. SVS performed system testing, and implemented the system in the demonstration site. SVS also performed EBT processing operations for the duration of the pilot.

2.2. Timeline & Tasks

The project began in April 2003 and was completed in November of 2005. The following table provides the project timeline and high-level tasks associated with the project:

Date	Activities
April 2003	• Project start
May 2003	• System design initiated. Sessions held with the project team and FNS to define system requirements.
August 2003	• Draft functional design completed.
September 2003	• States invited to participate in a design session. California, Michigan, New Mexico, Washington, DC, and Washington State attended the session. • Final Functional Design completed
October 2003	• Draft Detailed Design completed
December 2003	• Final Detailed Design completed
January 2004	• Washington State selected as demonstration site
February 2004	• Initial design sessions with Washington State

Date	Activities
Spring/Summer 2004	• SVS system development • Continued design discussions with Washington State • Retailers selected for participation in the demonstration
December 2004	• Functional Demonstration • Addition system enhancement identified
January – April 2005	• Completion of SVS development including enhancements identified in the Functional Demonstration • Washington State CIMS development • Internal and integration testing • Preparation for Acceptance Testing • Development of Training Materials
May – June 2005	• Acceptance testing • Preparation for implementation • Begin operations June 22
June – November 2005	• Operation of the Washington WIC EBT Demonstration

Exhibit 2-1: Timeline and Tasks

The project was initially slated to be a 19-month effort. The project lasted longer due to an extended design period including the selection of a state for the demonstration, a short development delay associated with an issue in the VeriFone software, enhancements added to the design following the Functional Design document, and a retest of system following the Acceptance Test.

The field demonstration began June 22, 2006 and through November 17, 2006. This was slightly shorter than the initial plan that called for a six-month demonstration because the participating retailers opted to conclude operations prior to their busy holiday season. The initial schedule provided to the retailers did not require their involvement during November and December, therefore they had not anticipated participating during this time. Schedule changes resulting from system enhancements and the retest of the system acceptance test pushed the six month demonstration period into mid-December. In October, one of the retailers (that was having more difficulty than the others) expressed a desire to conclude their involvement in the demonstration before the holiday period. The other two retailers wanted to continue their participation, but were concerned about their ability to handle additional WIC EBT customers from the other store during their busy season. The decision; therefore, was made to end the demonstration in mid-November.

2.3. Online Technology

Prior to this project, WIC EBT systems used offline technology to process transactions.[2] This means that the transaction authorization occurs locally in the in-store system using data maintained on the card and/or the in-store server (or clinic server). The central host system is later updated through an end-of-day process where all of the day's transactions are settled with the host. At this time the host also sends updates the in-store systems such as host card lists updates or updates to the UPC table. Clinic systems are also updated through the end-of-day settlement process. In an offline system, data is distributed throughout various clinic and retail systems as well as maintained on the WIC EBT cards. This data is not always synched with the host system.

A requirement of the Online WIC EBT demonstration was that all transaction approval and item authorization must be performed at the host online, real time. The host would be the database of record and limited to no synchronization would be required between the host and the retail and clinic systems. No data would be maintained on the card, it would only be used as a key along with a PIN to access account data on the host.

The requirement that all transactions take place online, real-time required that the stand-beside POS terminal and the clinic system connect with the host in order to complete any transaction. In the case of the stand-beside terminal this connection was made through a phone line via dial-up connection. In the clinic, an always-on, high speed connection was made via the internet through a secure virtual private network (VPN) connection.[3]

Given the limitations of dial-up connectivity, certain design features were considered for the retail transactions that would aid in predicting transaction and item outcomes. The ultimate requirement, however, was that the host would always make the final determination of whether a transaction was approved (based on valid card, PIN and vendor IDs) and whether item was authorized (based on the approved UPC table and account balance). To accommodate real-time transactions and the potential limitations of dial-up communications, several modes were designed for the system and are described further in Section 2.6 Transaction Mode.

[2] JP Morgan implemented a hybrid online WIC EBT solution for the State of Michigan at the same time the Washington State pilot started. For the Michigan project, the authorized food prescription is pre-loaded into an in-store controller through the performance of client initiated "start" transaction at the beginning of the client shopping experience.

[3] Two of the three retailers representing 50 percent of the transactions moved to high-speed connections using a VPN after three months of using dial-up.

2.4. Use of ISO 8583 and X9.93 Standards

The system was designed following the ISO 8583 and X9.93 standards. X9.93 defines the basis for retail WIC EBT transactions within the ISO 8583 standard. X9.93 is designed for use by online and offline POS devices and offers the developer a great deal of flexibility in implementing transactions within a POS environment. The standard provides messages for carrying out transactions, reversing aborted or failed transactions, verifying PINs, getting account balances, and sending error messages.

In the development of the Online WIC EBT system, some limitations of the standard were identified. The demonstration provided the project team with insight into what changes should be considered by the X9 committee in the future to improve its use in online WIC EBT messaging.

The clinic issuance system was designed in a way that was directly compatible with X9.93, although X9.93 does not directly address the needs of clinic issuance system. Where appropriate, files and messages defined for retail use (such as balance inquiry) were used in the clinic issuance system.

2.5. System Overview

The online WIC EBT system is comprised of several system components that support separate functions. These components include:

- **WIC EBT Card.** The WIC EBT card allows participants to access their benefits for making purchases at participating EBT retail locations.
- **Online WIC EBT Host System.** The EBT host system plays the central role in the EBT system, communicating with all other system components to distribute benefits, process transactions[4], and authorize payments to retailers. It maintains WIC EBT accounts; maintains UPC information; performs settlement, payment, and reconciliation functions; and creates reports for the state, clinics, and retailers. The host authorizes all transactions real time, online.
- **EBT Clinic System**. The EBT clinic system is the software used in WIC clinics that works with the local WIC certification software (or can work separately) to issue cards and benefits, and performs a number of other card management functions. In Washington, most

[4] A transaction can be a message or series of messages transmitted between the stand-alone POS and the host or between the EBT clinic system and the host resulting in the cardholder account being altered in some way. This can be a change that financially affects the account or updates information in the account such as participant demographic information.

functions were integrated into the clinic system. Few functions required the use of stand-beside software.

- **Retailer Systems**. A stand-beside POS terminal was developed for use in the demonstration. The retailer system performed in-lane processing, communicated with the EBT host system application for PIN verification and prescription decrement; and uploading/downloading of retailer settlement/reconciliation files. All of the retailers in the demonstration used stand-beside terminals. All were implemented in dial-up modes. Two of the participating stores that encompassed less than 50 percent of the transactions were moved to high-speed connections about half way through the demonstration.

The following diagram provides a graphical overview of the system components and their relationships with entities involved in the issuance and redemption of benefits.

Online WIC EBT System Overview

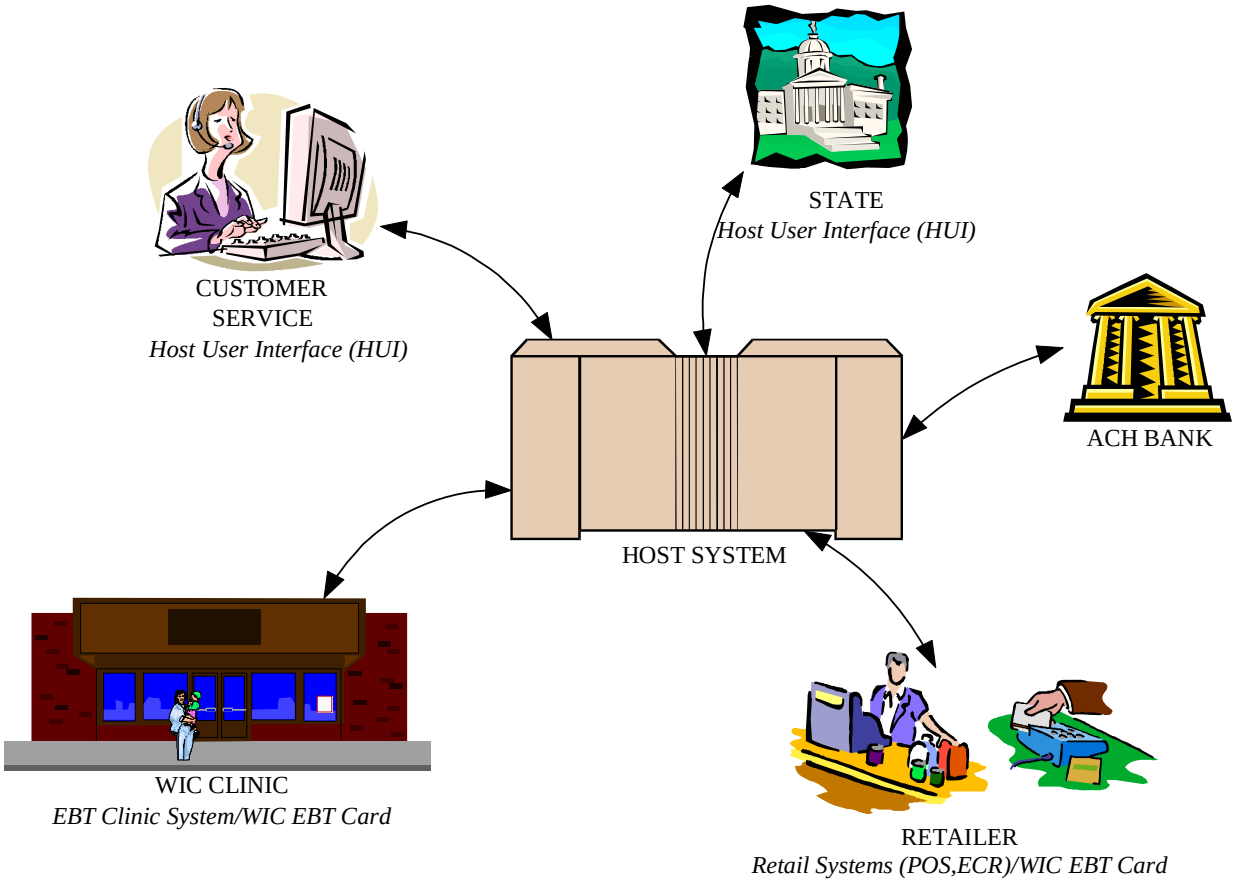


Exhibit 2-2: Online WIC EBT System Overview

2.6. Transaction Mode Overview

During the initial design session, the ISS team together with FNS identified several viable transaction modes to be tested as part of the lab demonstration. While these modes were available for testing in the lab environment, through the testing and evaluation process it was determined that only one mode would be implemented in the demonstration and that an additional mode might be introduces later in the demonstration if high speed connections were established.

From the design discussions, the potential variables that effect how a transaction takes place were identified. The variable that was determined to have the greatest effect on the flow of a transaction is the message mode. For this reason, the transaction modes have been categorized at a high level based on the three potential message modes. The other variables that were identified can create variations within the three high level modes; however, the communications with the host will remain relatively unchanged regardless of which variable is applied. The three high level modes are:

- **Item-by-Item Purchase**: In this mode, a connection is established with the host that remains until the transaction is completed. As items are scanned they are transmitted to the host for verification and deduction from the cardholder balance.
- **Item-by-Item Authorizations with a Purchase Request:** This mode is similar to the Item-by-Item Purchase mode in that a connection to the host is established and remains open while items are scanned. The difference between the modes is that items are not automatically deducted from the account, but are authorized and held until all items have been scanned. At the completion of the transaction, the host is able to maximize the items before deducting them from the cardholder balance.
- **Bundled Authorizations with a Purchase Request:** In a bundled mode, all items are scanned, and prices for each are entered or obtained prior to the initiating communications with the host system, unless the balance is obtained in a separate connection at the beginning of a transaction. Once connected, all information, including PAN and PIN, are transmitted to the host. As in the Item-by-Item Authorizations with a Purchase Request mode, all items are authorized, maximized, and then deducted from the cardholder balance. The host will transmit a response to the POS or ECR reporting the items that were approved and denied. Two varieties of the mode were developed, one ("bundled late") with only one connection to the host at the end of the transaction which transmitted all of the transaction information and one ("bundled early" or "bundled two connections") where a connection is made at the beginning of the transaction to verify the card and PIN and

potentially access and capture balance information, then a second connection is made at the end of the transaction to send all of the scanned items to the host in a bundle and complete the transaction. In the one connection variety, all denied items are identified at the end of the transaction. In the two connection variety, if the balance information is available, the POS could predict the items that will be approved or denied giving the cashier warning to not bag certain items that likely not be approved when processed by the host.

The mode selected for the demonstration was the Bundled Authorization transaction with one connection to the host at the end of the transaction. It required the least amount of communication time and worked well in dial-up during the functional demonstration a subsequent testing. Item-by-Item Authorization would be considered for implementation if any of the stores obtained a high-speed connection. Based on the functional demonstration, it was determined that neither item-by-item modes were feasible in a dial-up environment due to the time it took for the terminal to communicate with the host for each item, but did work quite well over a high speed connection. Although two stores moved to high-speed connections, limitations in the duration of the demonstration did not allow for item-by-item mode to be implemented. This mode should be considered for future online implementations.

2.7. WIC Clinic Participation

Washington selected the Marybridge Main WIC Clinic to participate in the demonstration. Marybridge Children's Hospital and Health Center WIC Central is located at 316 North L Street Tacoma WA. Services at this location have included Immunizations, Primary Care-Pediatrics Children with Special Health Care Needs, Maxilla Facial Review Board and WIC. WIC services began at this clinic in 1974 when federal funds became available.

The following map demonstrates the clinic location in relationship to the participating retailers.

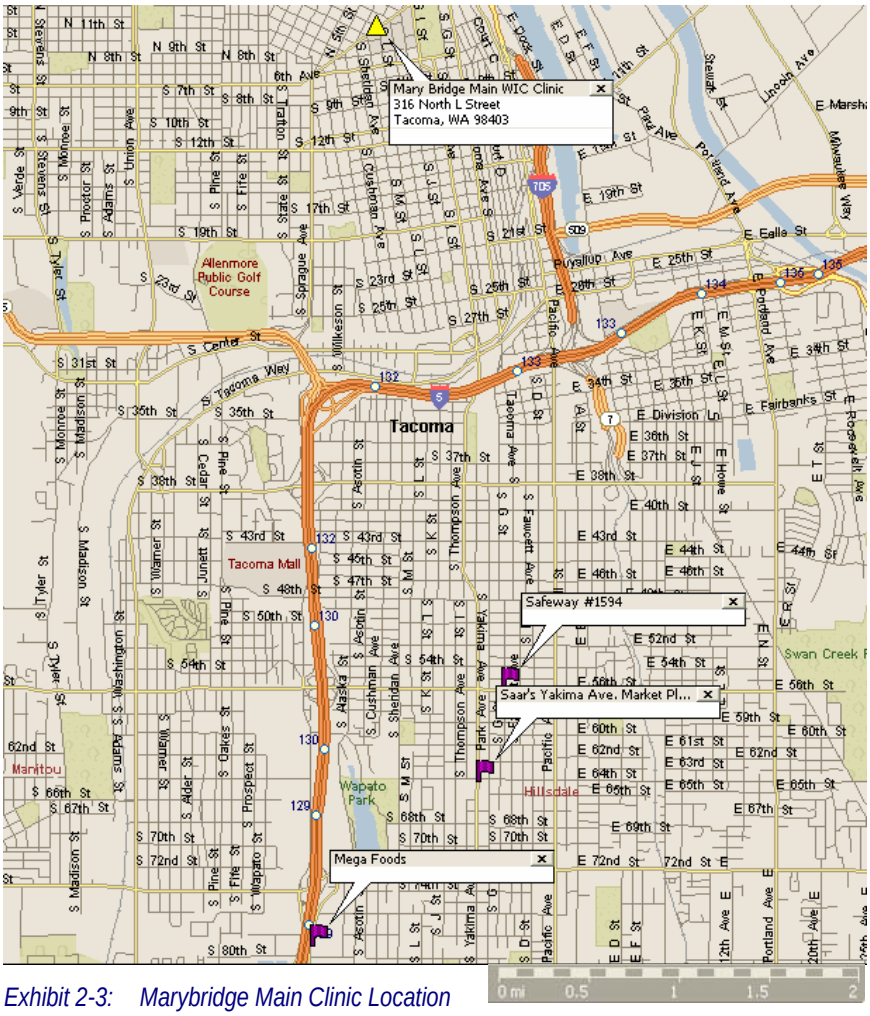


Exhibit 2-3: Marybridge Main Clinic Location

The current caseload at this location is 4,233 clients per month. Marybridge's Main clinic manages one of the top five largest caseloads in the State. 65 percent of its households have incomes at or below the federal poverty level. There are 1.9 FTEs of Registered Dietitian staff, 5.25 FTEs of Certifier staff and 4.0 FTEs of Clerical staff.

The site was selected because of its participation size, proximity to the demonstration retailers, and staff willingness to participate in the demonstration.

2.8. Retailer Participation

Three retailers participated in the demonstration; they were Safeway, Mega Foods, and Saar's Yakima Avenue Marketplace (Saar's). The three stores each had between seven to nine lanes. All three stores had all other electronic tender types integrated into their electronic cash register (ECR) systems. Each equipped two lanes with the stand-beside WIC EBT

terminal and had a balance inquiry terminal located at a customer service counter or other accessible location.

Safeway Inc. is one of the largest food and drug retailers in North America. As of September 10, 2005, the company operated 1,800 stores in the Western, Southwestern, Rocky Mountain, and Mid-Atlantic regions of the United States and in western Canada. Safeway store 1594 participated in the demonstration and is located at 707 S 56th Street in Tacoma. Management support and oversight was also provided by district office staff in Seattle.

Mega Foods and Saar's are independent grocery chains that are members of Associated Grocers', Inc. (AG). AG is a wholesaler providing food, general merchandise, and retail services to stores throughout Washington, Oregon, Alaska, Hawaii, Guam, and the Pacific Rim. AG procures and distributes grocery items through its distribution centers to its member stores. Both Mega Foods and Saar's have several locations in the State of Washington. The Mega Foods store that participated in the demonstration is located at 7911 S Hosmer Street in Tacoma. And the participating Saar's store is located at 6414 Yakima Avenue in Tacoma.

The retailers that participated in the demonstration are within a 3 mile radius from each other as depicted in the map that follows.

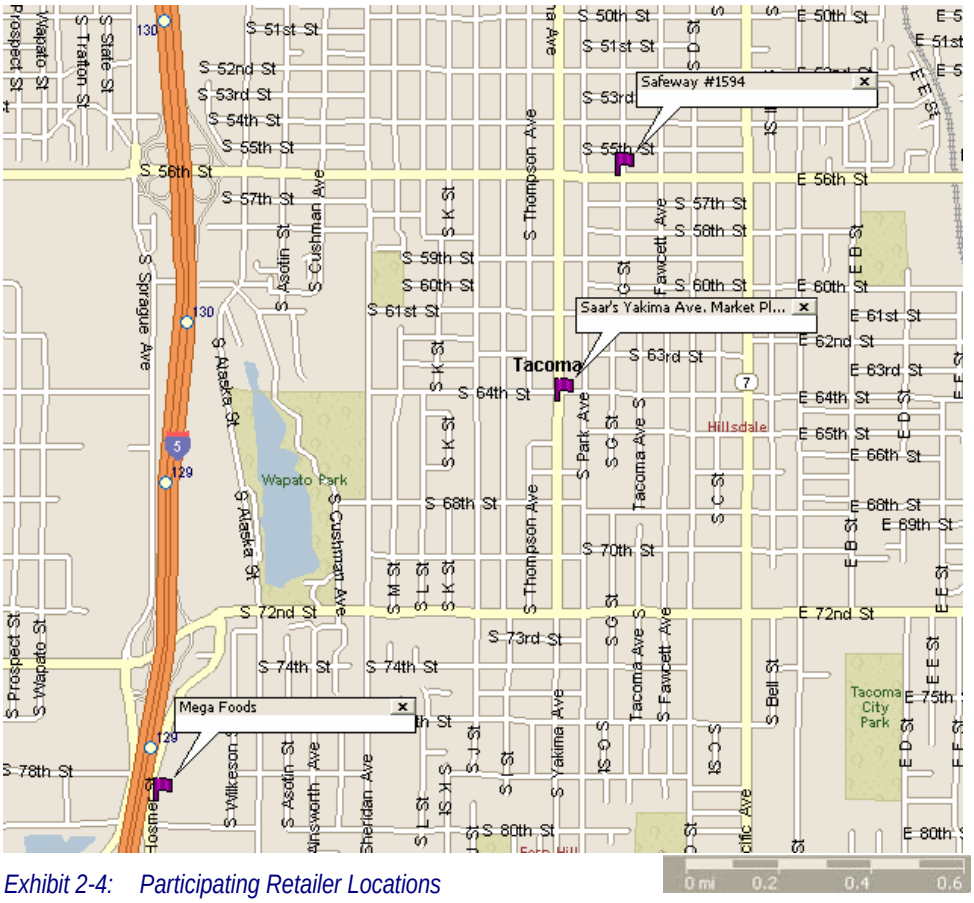


Exhibit 2-4: Participating Retailer Locations

3. CLIENT FEEDBACK

3.1. Summary of Findings

Approximately 300 households (500 participants) participated in the WIC EBT demonstration project in Washington State. Some limitations were placed on the type of clients that participated due to the level of functionality integrated into the WIC certification system, CIMS (such as the ability to adjust benefits via CIMS) and to avoid issues associated with prescription changes and language barriers.

Client feedback was collected through a paper survey and an onsite focus group. Feedback from clients for the most part was positive. All of the clients enjoyed the flexibility of shopping with the card; they could now shop at more than one store and purchase some or all of their prescription at one visit.

Exhibit 3-1: Client Selecting PIN at the Clinic

Key points that were identified from the client feedback include:

- Clients generally liked WIC EBT for its flexibility and ease of use; many were familiar with the Food Stamp EBT (QUEST) card.
- The majority preferred WIC EBT to paper checks.
- Clients reported minor issues (a learning curve) in the early weeks of their participation, but quickly caught on to how to use the card and how to obtain and read their balance.
- Clients reported that some cashiers had difficulties with transactions (specifically entering prices) which caused transactions to take longer.
- Clients acknowledged that they did not always check their balance before shopping.
- Clients did not like that WIC EBT was limited to certain lanes at the stores.
- Clients would prefer to have benefits for multiple months issued to the card at once rather than having to call the clinic to have each month's benefits posted.

The last two points were limitations of the demonstration; however it is unclear if a larger rollout would include full lane coverage of stand-beside

equipment due to cost constraints. Lane limitations would likely not be an issue in an integrated environment.

3.2. Survey Responses

During the final weeks of the Washington State Demonstration, clients returning to checks from WIC EBT were asked to complete a short survey about their experiences. The clinic had been collecting verbal feedback throughout the demonstration and this survey was used to expand on or clarify feedback collected previously.

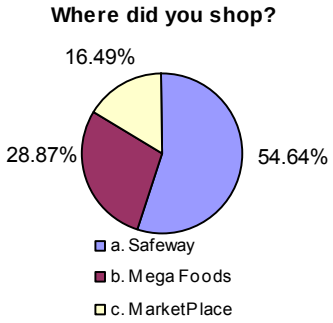
Surveys were completed by 69 participants, which represent approximately 25 percent of the households. The following provides the survey results.

Shopping Patterns

Clients were asked about their shopping patterns including which stores they shopped at during the demonstration. Respondents could select more than one answer for this question. The responses indicated that the majority shopped at Safeway. The responses to this question closely match actual transaction data for the percentage of shopping done at each store.

1. Did you shop at:		
a. Safeway	**53**	**54.64%**
b. Mega Foods	28	28.87%
c. MarketPlace (Saar's)	16	16.49%
Total	**97**	

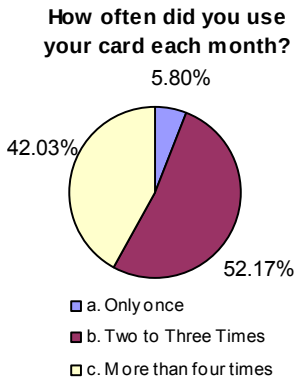
Exhibit 3-2: Client Survey Results – Shopping Patterns (1)



Clients were asked how often they used their WIC EBT card each month. The majority stated that they used their card two to three times per month with another large grouping using their card four times or more during the month. Although data was not collected on the number of times per month they shopped with their WIC checks, it was reported that some clients did change their shopping patterns because they had more flexibility in when they could buy the items in their balance rather than having to buy everything on one check at once.

2. Each month, how many times did you typically use your WIC EBT card? (Check only one)		
a. Only once	4	5.80%
b. Two to three times	**36**	**52.17%**
c. More than four times	29	42.03%
Total	**69**	

Exhibit 3-3: Client Survey Results – Shopping Patterns (2)

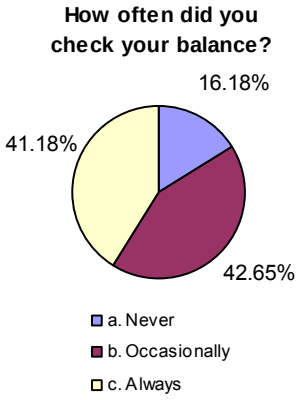


Balance Inquiry

Cashiers and store managers felt that not all clients were checking their balances. In their opinion only about 50 percent regularly checked their balance before shopping. The results of the survey showed that only 41 percent reported that they always checked their balance. Although clients were trained to check their balance before shopping, 42 percent reported that they occasionally checked while the remainder never checked their balance. This would indicate that the retailers' estimates may have been correct.

3. How often did you check your balance before shopping? (Check only one)		
a. Never	11	16.18%
b. Occasionally	**29**	**42.65%**
c. Always	28	41.18%
Total	**68**	

Exhibit 3-4: Client Survey Results – Balance Inquiry (1)



When asked about methods used for obtaining their balance respondents could select any response that applied. All 69 respondents answered this question with 27 listing multiple methods for obtaining their balance. There was an almost even split between the use of their last receipt and the balance inquiry terminal. Only two percent reported calling the customer service number.

4. What method(s) did you use to obtain your balance? (Check all that apply)		
a. Last receipt?	**47**	**49.47%**
b. Balance Inquiry terminal in the store?	46	48.42%
c. Toll-free customer service number?	2	2.11%
d. Contacting the clinic?	0	0.00%
Total	**95**	
Total Respondents	***69***	

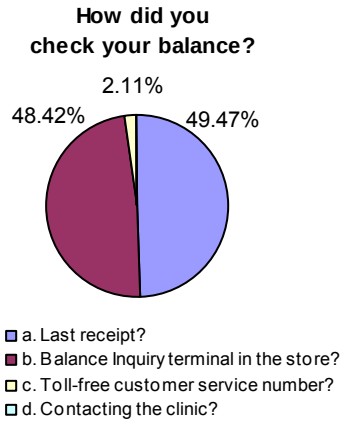


Exhibit 3-5: Client Survey Results – Balance Inquiry (2)

Item or Transaction Denials

Retail staff indicated that because clients were not checking their balances, there were some occurrences of denied items. Denied items were often difficult for cashiers to handle because the POS description of the denied item was not always clear making it difficult to determine which item to un-bag.

To determine the clients' perception of the frequency of denials, clients were asked if they ever had an item or purchase denied. Only 40 of the respondents answered this question, so it is assumed that those not responding to the question (about 39 percent) never had an item or purchase denied.

5. When using your WIC EBT card did you ever have an item or entire purchase denied? (Check all that apply)		
a. One item?	**28**	**66.67%**
b. Multiple items?	7	16.67%
c. All items?	2	4.76%
d. Entire purchase because of an invalid card or PIN?	5	11.90%
Total Responses	**42**	
Total Respondents	***40***	

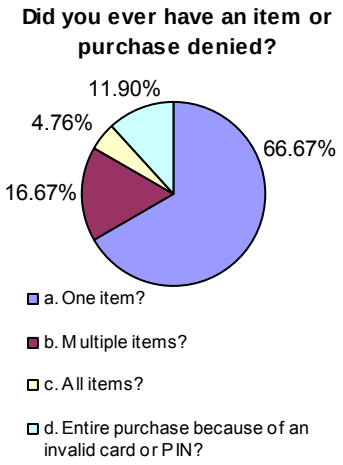


Exhibit 3-6: Client Survey Results – Item/Transaction Denials (1)

In answering this question, respondents could select more than one reason; only two respondents selected more than one reason (each selected two reasons). Of those responding to the question, most only had one item denied. Denials of multiple or all items in a transaction were infrequent.

Respondents also reported an insignificant amount of transaction denials were due to invalid cards or PIN.

To gather some additional information, respondents were also asked if they ever had an item denied because they did not have enough balance. A large majority (83 percent) indicated that they did not.

6. Did you ever have an item denied because you did not have enough balance to purchase it?		
Yes	11	16.18%
No	**57**	**83.82%**
Total	**68**	

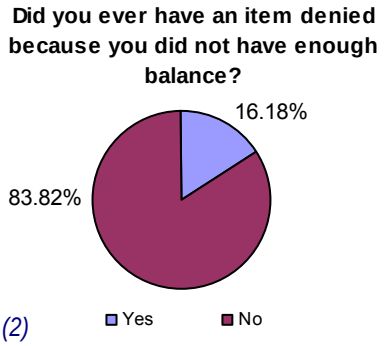


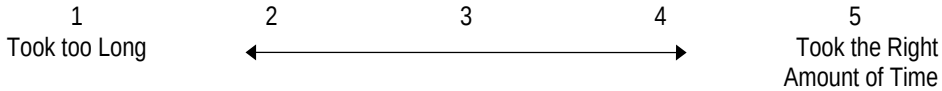
Exhibit 3-7: Client Survey Results – Item/Transaction Denials (2)

Responses to this question could not be correlated with responses from the previous questions to determine of the reason for the denied item in the previous question was due to insufficient balance. However, the client perception of denied items due to insufficient balance appears to be that the majority of users did not encounter them. The retailer perception described in the next section indicates that many cashiers felt that denials occurred due to insufficient balance. It is possible that their perception is skewed, because when item denials did occur they tended to cause more difficulties and lengthened the transaction time. Additionally, most cashiers were familiar enough with the approved foods that they would identify non-WIC foods before scanning them into the system.

Further consideration behind the reasons for these denials should be investigated and compared to items rejected by cashiers in the check environment. It is likely reasons for denied items in the check environment might largely be due to improper brand selection. It is unclear from the data collected that this is also an issue in the EBT environment.

Transaction Speed

Determining whether transaction speeds were appropriate was a component of the project. Clients were asked their opinion about the speed of WIC EBT transactions using a 1 – 5 rating scale with 1 meaning it took too long and 5 meaning it took an appropriate amount of time.



Responses to this question varied greatly with the majority opinion (31 percent) being that it took slightly more than the right amount of time.

7. On a scale of one to five, what did you think of the speed of WIC EBT purchases? (Circle only one)		
1 Took too Long	12	17.39%
2	8	11.59%
3	19	27.54%
4	**22**	**31.88%**
5 Took the Right Amount of Time	8	11.59%
Total	**69**	

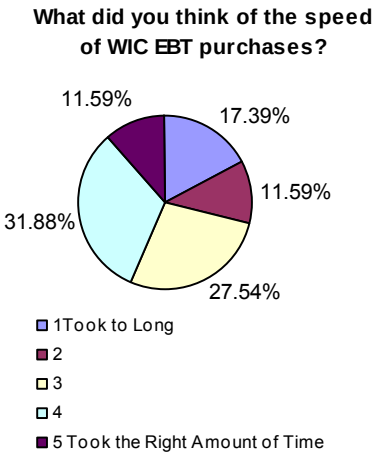


Exhibit 3-8: Client Survey Results – Transaction Speed (1)

As a follow-up question, clients were asked the reason a transaction took too long. They were provided with three possibilities and could select any that applied. There were 61 responses from 49 client respondents. Most stated that the reason was because the cashier had difficulty. A large group also indicated that the WIC EBT terminal malfunctioned and caused the delay. Both issues were reported by retail staff as well. Reasons for these difficulties are expanded upon further in Section 4, Retailer Feedback.

8. If you thought purchase(s) take too long, did you have experience with the card where . . . (Check all that apply)		
a. The EBT machine malfunctioned?	24	39.34%
b. The checker had difficulty?	**33**	**54.10%**
c. You had trouble using your card?	4	6.56%
Total Responses	**61**	
Total Respondents	***49***	

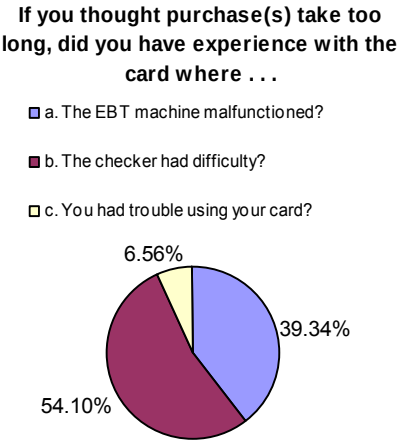


Exhibit 3-9: Client Survey Results – Transaction Speed (2)

Overall Opinion of WIC EBT

Compared to their experience with checks, clients were asked to rate their experience with WIC EBT on a scale of 1 to 5. A rating of 1 meant that checks were much better than EBT and a rating of 5 meant that EBT was much better than checks. Based on feedback obtained during informal surveys with clients the responses were expected to be positive towards EBT. Not surprisingly, the majority opinion (60 percent) was that EBT

was much better than checks. Another large group (20 percent) rated EBT slightly better than checks meaning that 80 percent of the respondents felt that EBT was better than checks.

9. On a scale of one to five, what did you think of your experience using WIC EBT compared to WIC Checks: (Circle only one)		
1. Checks are much better than EBT	7	10.14%
2. Checks are slightly better then EBT	2	2.90%
3. Checks and EBT are the Same	4	5.80%
4. EBT is slightly better than Checks	14	20.29%
5. EBT is much better than Checks	**42**	**60.87%**
Total	**69**	

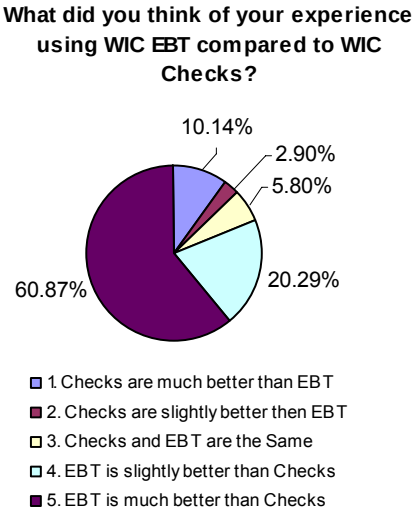


Exhibit 3-10: Client Survey Results – Overall Opinion

3.3. Focus Group Feedback

A client focus group was held to gather additional feedback from the client population. Approximately 15 clients were invited to the session. The clinic tried to invite clients who would likely attend the session and had participated in the demonstration for the majority of the time the system was operation. Two clients who had participated for more than three months, attended and provided feedback. A third client was interviewed after the formal session to gain additional insight. All three clients' responses have been combined in the discussion of the results of the focus group.

The facilitator used a focus group guide with questions to prompt discussion. The session was not, however, scripted so not all of the questions may have been answered or may have been asked in a different way. The results of the session are provided below.

Use of the EBT Card

The first topic discussed was the use of the WIC EBT card such as ease of use and understanding of receipts and balance information. Focus group participants' feedback about the usability of the card was mostly positive. Some of the initial issues such as learning to read their balance were resolved through practice. Other issues such as limited lane coverage and items that were denied that they expected to be approved were noted; some of the issues were a direct result of the limited nature of the demonstration.

One client did not like having to call the clinic each month to have her benefits posted. Single month issuance was used as a way to monitor EBT by requiring that the client check in each month with the clinic and

provide feedback. Clients who failed to phone still received their next month's benefits, the clinic staff simply renewed EBT for the next month. Only approximately 30 to 35 percent complied with the clinic's request for the client to contact them each month. The State would anticipate a similar requirement for some percentage of clients in the early months of a Statewide implementation to ensure clients are receiving good service and the retail checkers have been properly trained. Once the initial or pilot period was completed, clients would no longer be required to check in with the clinic beyond their normal contacts.

Shopping Patterns

Participants in the focus group were asked about their shopping patterns as part of the feedback session. Feedback received on shopping patterns indicates that there were some changes to shopping behavior of the focus group participants. One client pointed out that she liked being able to purchase only what was needed and not what was on a specific check. Another client stated that she thought she bought fewer items with the card than with checks (redemption patterns are addressed in the EBT Redemption Rates section of Section 6.2 Washington State Summary).

Further benefits of the card were also cited. Focus group participants indicated that with the card other customers did not know they were using WIC until the cashier began double scanning.

Issues identified by a focus group participant included having leftover benefits in small quantities that could not be used. This typically occurred with cereal because the client had to select the correct package sizes to add up to their monthly allotment. While this was one client's perception, this may actually be less of a problem than the check environment since EBT rolls several participants benefits together.

Another issue reported was that the transactions were slow.

Opinions

The final portion the client feedback session focused on the client's overall opinions of the WIC EBT demonstrations, improvements that should be made and comparison of WIC EBT to the paper process. Improvements to EBT suggested by the focus group participants included only having to scan an item once, having the next month's benefits automatically post to the account, and having the ability purchase larger sizes. The first suggestion could only occur with an integrated cash register system. Ideally, the State would program the clinic system to support multi-month issuance to the card, but due to the limitations of the demonstration, only single month issuance was allowed in order to monitor the demonstration from the client's perspective. The third suggestion would require changes to the approved foods list and likely policy changes to allow larger sizes such as a carton of 18 eggs.

The focus group participants indicated that they would like to see WIC EBT expanded to incorporate more stores. In their opinion, they felt that the retailers liked WIC EBT.

In discussing paper checks, the focus group participants saw an advantage in that they always knew their balance. Additionally, they could be issued multiple months of benefits at once. They also pointed out that other customers could more easily identify that they were using WIC and could move to another lane. In contrast, checks require that all items on a check be purchased at once. Signing checks was also noted as a disadvantage.

The reported advantages of WIC EBT included the ability for someone else to shop for the participant, the card is easier to carry around, and cardholders only have to purchase what is needed during that visit. Disadvantages were reported to be issues with purchasing 1-oz. string cheese, double scanning, and the inability to buy in bulk (i.e., larger sizes such as 18 count eggs). The string cheese and bulk food items were issues due to the limitations of the demonstration and could possibly be resolved for a larger rollout.

4. RETAILER FEEDBACK

4.1. Summary of Findings

Retail staff feedback on the WIC EBT demonstration was mixed. Many thought it was a great concept, but the terminal needed some additional improvements before it would be acceptable. Most thought the WIC EBT card held a lot of advantages for the cardholders.

Exhibit 4-1: WIC Client Shopping at Mega Foods

When there were no errors or denied items, cashiers generally thought the system worked well. The current version of the software made it difficult to easily identify an error up front or fix it once found without having to completely restart the transaction. Another issue was the cashier's ability to identify specifically which of the scanned items had been denied. The description displayed on the terminal was the subcategory description (which was somewhat generic, though approved by the State and FNS) and the UPC, which made it difficult to find an item that may have already been bagged.

Transaction times were also reported to be an issue. Many noted that the transactions took too long and that they took longer than checks. Both processing speed and transaction flow were cited as causes; however it is not always easy to determine if the retail staff's feelings about the time it takes to complete a transaction is related to inefficient lane flow because of the stand-beside terminal double scanning and key entry of prices or actual transaction processing speeds. Transaction times were recorded by project team and State staff and are summarized in Appendix A: Project Statistics as well as discussed later in this section. Results showed that transactions without any errors or denials are comparable to checks, but when errors, denials, or restarts were required transaction times could be excessive.

Several key points were identified from the retail staff feedback:

- Transaction times must be improved in order for online WIC EBT to be successful.
- Enhancements need to be made to the terminal to:
  - Reduce or eliminate communication errors;

- Improve time connecting to the host (particularly in dial-up mode);
- Display or print items and prices that have been previously entered;
- Allow a item or price that have been previously entered to be edited by selecting from a list on the display;
- Display a running count of items in addition to a running subtotal; and
- Provide a more detailed description of denied UPCs.

- Other transaction modes should be considered for future rollouts that would allow for immediate notification of denied items for both unapproved UPCs and for items for which there is not sufficient balance.
- Integration with store cash register systems should be pursued to eliminate issues associated with a stand-beside system. Cashiers, managers and bookkeepers agreed that they needed an integrated solution, not a stand-beside system.

It should be again noted that the demonstration was of limited scope. The software that was designed and developed for the demonstration met all of the requirements for the project and in many cases exceeded the original requirements of the contract. However, the functionality of the current terminal software was still considered limited by the users. Many of the issues cited can be resolved through additional development and enhancements to the terminal as well as further consideration of lane flow processes.

The following sections provide detailed information about the retailer experience throughout the demonstration. Data and feedback was collected from several sources. The Retail Manager for the project was interviewed regarding her experience with the project and the feedback she received from the retailers. Retail staffs were surveyed about their experience with WIC EBT as well as having on site interviews performed. Information from these data collection activities have been documented and analyzed in the remainder of this section.

4.2. Retail Manager Assessment of Demonstration

The MAXIMUS Retail Manager, Jeane Fink, worked closely with all three participating retailers. This section provides a summary of the feedback, identified issues, resolution to issues, and other observations from her work with the retail staff, supervisors, and other store management.

Equipment

The equipment selected for use in the demonstration and placement of the equipment can have an effect how the users perceive the usability of the system. Equipment was selected for its quality, durability and usability. The equipment held up through the demonstration. Only one terminal and one scanner needed to be replaced. Several lessons were learned about better placement of the equipment and issues cited by cashiers with specific equipment components.

POS Terminal

The Verifone Omni 3750 terminal was selected for use for the Online WIC EBT Demonstration Project. The Omni 3750 terminal is a versatile Point-of-Sale terminal offered by Verifone. Verifone offers it as a plug-and-play terminal that is fairly easy to install and use. Its all-in-one design includes a magnetic-stripe card reader, integrated smart card reader (not used for this demonstration), an internal PIN pad, and integrated thermal printer. The compact design conserves counter space and is designed so that the terminal can be available to customers for PIN entry or other input. It has a large backlit display, large keys, and easy-to-read menu prompts that, according to Verifone, should help reduce clerk training and minimize user errors. The integrated, high-speed thermal printer with its 'clam shell' design features drop-in paper-loading that virtually eliminates paper jams. It also has a flashing LED to alert clerks to low-paper levels. Although this terminal was selected for its flexibility and ease of use, some of the users had difficulty pressing the buttons, as described in the survey results found later in this section.

The Omni 3750 terminal also offers the flexibility of both built-in dial-up and Ethernet-based, always-on connection capability. The Omni 3750s were reliable and physically worked well. Only one terminal had to be replaced (at Saar's on 8/12/2005), as a result of a malfunction during the Project.

Scanner

The PSC QS6000 Plus hand held gun-type scanner was selected for use for this project, and was attached to the POS terminal with a 6-ft curly cord. Stands were provided by SVS and some reprogramming was done to the scanners so that the beam was always 'on' and could be used in the stands. The project team found the stands extremely helpful during testing, but the retailers had mixed feelings about them. The configuration of the retailers' checkout lanes did not allow for very good placement of the scanners in their stands. The cashiers at Mega Foods and Saar's did not often use the scanners in their stands. Safeway's placement of the equipment was more conducive to using the scanners in their stands.

There was some discussion during the Testing phase about obtaining and using a different, "Coke can"-shaped scanner. Project team members have

seen them used in other states where, in some locations, they are mounted (with Velcro) up on walls and poles, and in those instances are more efficiently placed for use than this project's participating retailers were able to do with the hand-held scanners.

The hand-held scanners were reliable and appeared to work well. John Fleener, the State's Project Manager, and Jeane Fink noted fairly early in the project that one scanner (at Safeway) appeared to have sporadic issues with 'waking up' before scanning, but they were never able to pinpoint whether or not it really had a problem, and no one at Safeway complained about it.

Equipment Placement

Each retailer was provided with three terminals – two for placement in checkout lanes and a third for primarily doing balance inquiries. The original plan was to provide the retailer each with one POS terminal. Because these multi-lane retailers focus on customer service, it was determined that only one terminal at each location would not be acceptable.

Determining exact placement of the terminals in the checkout lanes was a challenge for all three retailers. Because the terminals are all-in-one, with the scanners attached by 6 ft. curly cords, the terminals needed to be accessible to both the cardholders for card swiping, PIN entry, and verifying totals, and to the cashiers for scanning and keying.

The three retailers placed two terminals each in pre-selected, busy check out lanes. Two retailers (Safeway and Saar's) placed the Balance Inquiry terminals at their Customer Service counters and the third retailer (Mega Foods), not having a Customer Service counter, placed their Balance Inquiry terminal in a publicly accessible area at the front of the store. Because of the placement of Mega Foods' Balance Inquiry terminal and the Retail Manager's concerns about it being so near their front door (and the possibility of it being stolen), SVS provided a terminal stand/base that Mega Foods secured (with screws) to the platform they placed it on. This helped make the terminal more immobile.

Mega Foods placed their WIC EBT POS terminals in their lanes 5 and 8. They found previously-used swivel-based POS stands in their existing inventory, and mounted the two POS terminals in their checkout lanes on them, directly next to their commercial POS terminals.

Exhibit 4-2: Placement of WIC EBT Terminal at Mega Foods

The only complaint the Retail Manager heard about them, from a short (in stature) Mega Foods' cashier, was that they were placed up too high to easily see the screen and keys. Since it was placed directly next to their commercial terminals, project team members assumed she may have had the same issue with the commercial terminals.

At Mega Foods, the scanners were placed on the opposite side of the conveyor belts from the terminal, directly on a corner of the register bases. Their placement caused the Mega Foods' cashiers to hold the scanners in their hands most of the time to scan merchandise instead of using the provided stands. Cardholders did not customarily do the total amount validation on the terminal at the end of the transaction, primarily because they were not paying much attention to the POS terminals' prompts. Mega Foods' cashiers would compare the total shown on the WIC EBT POS terminal display to the register total and continue when the totals matched.

Safeway placed their terminals and scanners directly under a section of the countertop that held their commercial POS terminals in their lanes 3 and 7. The scanners were mounted in the stands and Safeway cashiers were able to use them that way most of the time. The cashiers would hand the POS terminals to the customers (normally by setting them up on the countertop next to the commercial POS terminals momentarily) so cardholders could swipe their cards and enter their PINs. Safeway customers also did not customarily do the total amount validation. Safeway cashiers would compare the total shown on the WIC EBT POS terminal display to the register total and continue when the totals matched.

Exhibit 4-3: Placement of Safeway WIC EBT Terminal

Saar's has a slightly different checkout lane configuration that they refer to as a horseshoe. Two registers sit side-by-side, with the conveyor belts on the outsides, on opposite sides of the registers. One cashier alternates back and forth to operate both sides almost simultaneously.

Exhibit 4-4: Placement of Saar's WIC EBT Terminals

Saar's placed both of their in-lane WIC EBT POS terminals in the centermost of their three horseshoes. The WIC EBT POS terminals sat directly next to the registers, with the scanners in their stands, placed up on the register bases. The cashiers would hand the POS terminals, over the conveyor belt, to the cardholders so they could swipe their cards and enter their PINs. Cardholders did not customarily do the total amount validation at this store either. Saar's cashiers would compare the total shown on the WIC EBT POS terminal display to the register total and continue when the totals matched.

For a statewide implementation of WIC EBT, the State may want to consider providing or offering a swivel-based stand as part of a stand-beside POS terminal package for stores that do not integrate.

Halfway through the Demonstration, the retailers asked for and each received an additional POS terminal to be used specifically for training. The terminal software did not include a training mode, but the terminals were configured to connect to with SVS' test host rather than the production host. However, as reported in the retailer survey, none of terminals were ever used by the retailers.

POS Software

SVS developed the POS transaction software used to process the WIC EBT transactions. There were multiple software releases, as the retailer-gained experience processing transactions and their identification of problematic issues. As a result of changes and updates made, the POS terminals in the stores were reloaded three different times during the Project. Two of the sets of changes required partial downloads, and one required a complete update of the software and necessitated a full download. Because of the limited nature of the demonstration, it was agreed early on that the ability to download software updates directly from the host to the terminal was a "nice to have" feature that could be implemented as some point in the future.

Performing the software updates required someone to visit the stores and load the terminals with the software, using a laptop and a specialized cord to connect the laptop to the POS terminal. This activity needed to be coordinated with the retailers and was best done during off-peak hours when the retailers were less busy and project team member presence and removal of the terminals from the lanes for a period of time did not interfere with the ability to conduct business. The full download process turned out to be more time consuming than anticipated: It required the download to be done after Settlement and before any other transactions, which meant they had to be done either late at night or very early in the morning. A Settlement transaction had to be performed before the software download, and then again after it was completed. The stores' lists of User IDs and passwords then had to be reentered (manually) into each terminal.

Safeway had a fairly short list of three Clerk IDs and one Supervisor ID. Mega Foods had 20 numeric-value Clerk IDs and 10 supervisor IDs. Saar's had 12 alphabetic-value Clerk IDs and 5 Supervisor IDs. The Saar's list of IDs and passwords took the longest to re-enter – approximately 90 minutes for all three terminals, plus the training IDs for the Training terminal.

As part of the initial equipment installation and training, the Retail Manager had entered the retailer-selected User IDs and passwords into each WIC EBT POS terminal. She also did all of the re-entry of the User IDs and passwords after the full downloads. Mega Foods was the only location of the three that had ever done any of their own User ID maintenance. Initial IDs were set up for them, which they modified to better suit their needs. The Retail Manager found the ID set-up in the POS software challenging. Doing the software upgrades required extreme care in making sure the right version was being downloaded for the correct terminal ID and required some customization for each terminal. Having someone knowledgeable and experienced in working with the WIC EBT POS terminals and the software on-site to perform the loads was paramount in ensuring they were done accurately.

In addition to SVS' Quality Assurance process and activities, the Retail Manager checked each software upgrade's functionality before visiting the stores and loading the software. She also made additional minor changes to the software files prior to updating each terminal's software.

Functionality

The WIC EBT terminal functionality met the requirements of the project. It could successfully complete all required transactions. The terminal software supported baseline functionality; however further enhancements to the software will improve its operation in-lane.

Purchase transaction worked well as long as all items presented were approved. The terminal's screen prompts for next actions. Cashiers had to pay close attention to what they were being prompted to do next. As long as items scanned correctly, prices were keyed correctly, and all items were approved, the transaction proceeded fairly quickly.

When items were declined, some found the denial or "Take Out" prompt difficult to understand and follow. Depending on how many items had been presented, the information displayed on the screen with the "Take Out" prompt was not necessarily clear enough to give the cashier sufficient information about what had been declined. The description of the item was limited to the Subcategory description, for example if 8 oz. of cheddar cheese was denied, the terminal would displace "TAKE OUT 1 CHEESE." Some cashiers became easily flustered at this point in the transaction, and might cancel out of the entire transaction and start again, rather than take the time to try to figure what exactly needed to be removed. Their concern and primary focus was to get the customer

through their check out lane as quickly as possible so they could move on to the next customer. Error conditions caused cashiers distress and frustration, primarily due to their inexperience with the terminal and because use of stand-beside terminals was outside of their normal transaction flow process.

Safeway reported that they thought the terminal's keys were very "squishy" or "spongy," too small, and did not respond well to key entry. They felt this was the cause of most cashier data entry errors. The other retailers' response to questions about the terminals' key responsiveness was non-committal. They may have gotten used to it and/or as result of their keying errors, and with practice, were paying the amount of attention they needed to be paying attention to what they were doing to minimize the keying errors. Mega Foods' lead cashier emphasized how important "concentration" was to successfully complete transactions – her message was that it required much more attention and focus than her other checkout tasks.

Cashiers would occasionally cancel out of transactions due to errors they had made, errors they thought they had made, or when they did not understand a response they got from the terminals. Given the number of purchase transactions that were done over the course of the Project, there were only a few actual "Cancel" transactions done to completely reverse and return into a cardholder's account ALL items that had been purchased. The few Cancel transactions that Project Team members were aware of were done to correct cashier key entry errors. WIC customers cannot return items purchased with their WIC benefits for credit, but can exchange the items.

The retailers reported that occasionally the terminals would just get stuck in processing. During those instances when the terminal was non-responsive, when communications errors occurred (described later in this section), or for occasional issues logging on with supervisor IDs (to do End-of-day, Settlement, and reports), retailers would "*power fail*" the terminals to reset them. The retailers reported that the power fail process seemed to clear these error conditions most of the time.

In late October, in an effort to further reduce the number of price entry errors, SVS added a total dollar amount counter to the terminal display into the POS Software Update dated 10/24/2005. However, it was not added to the POS software load and installed at the stores until the last month of the Project. Because fewer transactions took place after that time, not enough feedback could be gathered to know whether or not it was helpful. One comment the Retail Manager heard about it was that an item count in addition to the total dollar amount would also have been helpful.

The functionality issues that have been cited are correctable. Further enhancements have been identified as part of the demonstration and from

feedback received from the user that would provide for easier navigation through the purchase process and for better identification of denials and errors.

End of Day, Settlement and Reconciliation

Each business day, participating retailers must perform a set of actions on the WIC EBT terminal as part of reconciliation activities. These actions include the following:

- End-of-day: Data is maintained in the WIC EBT terminal in files called batches. Throughout the day, as transactions occur that are logged to the batch file that is currently open. Ideally, transactions for each business day would be maintained in their own batch file. In order to maintain the segregation of business day transactions within separate batches, an End-of-Day transaction must be performed on each terminal either at the end of each business day or beginning of the next business prior to transactions taking place.[5] The End-of-Day transaction essentially closes the batch that is currently open and opens a new one. The transaction could only be performed using a Supervisor log-in ID.
- Settlement: Each day, the host performs its end-of-day process which, among other activities, reconciles the host system, determines the amounts to be paid to the retailer, and creates the Auto-Reconciliation file that will be transmitted to each WIC EBT terminal. In order for the terminal to receive that data, a Settlement transaction must be performed. The Settlement transaction cannot take place before the host completes its end of day process, therefore the retailers were trained to run this transaction as part of their beginning of day activities. During the Settlement transaction, the WIC EBT terminal connects to the host and downloads the auto-reconciliation file and any updates to the category and subcategory list.[6]
- Reconciliation: For reconciliation, retailer staff print the Auto-Reconciliation Report and Detail Report from the WIC EBT terminal. These reports are compared with store reports to verify that the information on the WIC EBT host matches the store reports and the store is getting paid by SVS what they anticipated being paid.

Initiating the End-of-Day required the retailers to perform an End-of-Day transaction on the POS terminal to close out a transaction batch. It was presented to the retailers that they could, if they wanted, perform an End-

[5] Retailers were trained to perform the End-of-Day transaction at the end of their business day.

[6] If UPCs were maintained on the POS, they would be updated as part of this process.

of-Day transaction to close out transaction batches for specific daily shifts and possibly have separate batches for each shift. None of the retailers opted to do them in this manner. All initiated one End-of-Day transaction per day, at each terminal, usually around the same time they closed their books for the business day for their other systems (their commercial POS terminals and their registers). Occasionally, a retailer representative would forget to do the End-of-Day transactions. Forgetting to do the End-of-Day transaction resulted in all the transactions since the last End-of-Day to be reported, at the POS terminal level, into the next day or the next batch. Forgetting to do the End-of-Day transaction did not affect Settlement. SVS initiated payment to the retailers' bank accounts based on the transactions performed and recorded during a preset timeframe of 8 a.m. one day to 8 a.m. the next day (Eastern Time). The Host initiated Settlement at 3 a.m. (Eastern Time) or Midnight (Pacific Time).

Of the three retailers, Safeway was the only one who expressed difficulties reconciling to the SVS-set Settlement time, mostly whenever they performed any transactions between 10 p.m. and Midnight. They performed their End-of-Day and Settlement activities at around 10 p.m. (Pacific Time) for their register system and commercial POS system, although the store was open until midnight. The two-hour difference in End-of-Day processing times caused them quite a bit of confusion and headaches. Project team members believe that was due partly to their lack of true bookkeeping expertise and skill set at the store level. Safeway's Customer Service associate primarily responsible for reconciling WIC EBT transactions to Safeway's system, was not a trained or experienced bookkeeper.

To initiate reconcilement of their commercial and register systems, Safeway Customer Service associates simply entered reported daily sales and tender figures into a computer screen. Banking associates at a corporate location performed the actual reconcilements against bank statements of corresponding deposits. Mega Foods and Saar's processes were similar, but their store end-of-business-day was Midnight, which seemed to make a difference in their ability to reconcile their WIC EBT settlements. Though they were repeatedly asked, Mega Foods and Saars did not report having the same issues with balancing and settlement that Safeway did. They also had a smaller percentage of the WIC EBT transaction volume to reconcile.

In early September, the Retail Manager received a request from a Safeway district-level manager for transaction activity details for the week ending 8/13/2005. Safeway said they had been unable to balance the WIC EBT transactions from the beginning of the Project and up to that point. The main issues described were

- The two hour difference between the store end of day and the WIC EBT host end of day. If a transaction occurred during this time period they had difficulties reconciling.

- The requirement of their financial system that they have end of day totals at their end-of-day close. WIC EBT host totals were not available until the following morning.
- Maximum price overages resulting in the system reimbursing the retailer up to the maximum price based on State specifications.
- Discrepancies between ECR and WIC EBT POS totals due to price keying errors.

The Project Team and State of Washington staff held a conference call with Safeway to discuss options improving the reconciliation process on Safeway's end. Options were suggested, such as running the end-of-day process twice per day at approximately 10:00 pm when the store runs its end of day process and another when the store closed at midnight. This would essentially create two batches – one batch from store opening until approximately 10:00 pm and one from 10:00 to midnight. It would allow the store to capture the transactions that occurred during the two hour lag time so that they could more easily be identified. The store manager felt that this additional step could not be supported by the evening staff and was therefore not implemented by the store.

Because some of the reconciliation issues were associated with how their financial system operated, Safeway staff stated that they would look into alternatives on their end that would provide for a smoother reconciliation process. It is unclear if anything was uncovered regarding their financial system. In later meetings no information was provided that indicated that anything could be adjusted.

Other alternatives also included the State looking into increasing the maximum price for the items causing the maximum price overages. The State addressed this issue by reviewing the latest shelf prices and adjusting the maximum price of the items. Discussions were held about how to reduce keying errors, which resulted in enhancing the terminal with a running subtotal.

Additionally, since the store requested more detailed information to help with reconciliation, the Retail Manager began providing Safeway with their transaction detail section from the daily 510A, Daily Transaction by Retailer Report, and their daily ACH total from the 810F, Weekly Extract for ACH Information Report (based on totals from the 500A, Daily EBT Retailer ACH Settlement Report). She provided this information on almost a daily basis, subject to Safeway's bookkeeper work schedule. Safeway store-level associates only had access to an internal email system. The Retail Manager communicated with the bookkeeper almost daily from early September until the end of the Project via phone and fax.[7]

[7] It should be noted that this level of support from a Retail Manager is unusual and was able to be provided due to the small nature of the demonstration. A demonstration of this type requires a different level of support than rolling

Although Safeway reported issues with reconciliation, there is no indication that the same types of problems existed at the other two stores. The reconciliation processes were slightly different in these two stores. Rather than using the Auto Reconciliation Report they chose to use the daily Detail by Clerk Report to match transactions to their cash register receipts. Mega Foods' and Saar's End-of-Day and Settlement timing and processes were also very different from Safeway's. Additionally, they had more experienced bookkeepers involved in the process and typically had less transactions to reconcile on a daily basis.

POS Terminal Reports

The POS terminal reports functioned and were used by the retailers in their daily operations. Some of the stores found that they preferred using certain reports over others as part of their reconciliation process. Feedback from the retailers indicates that most of the reports were acceptable for their intended purpose.

Only one issue was identified with the Auto Reconciliation report during the demonstration. In working with the retailers, especially Safeway, the Retail Manager discovered that there were problems with the Auto Reconciliation Reports displaying transaction information in the wrong sections of the report making the report difficult to use and understand. SVS provided a new software load to address these issues, which were installed in early October (dated 9/28/2005). In late October when Project team members were in Tacoma doing the transaction timings, the problem was observed again. After further investigation it was unclear whether it was a POS or a host problem. At this time, the demonstration was concluding and the developers did not have an opportunity to implement a fix to address the issued prior to the end of the demonstration.

Enhancements to address the issues identified with the Auto Reconciliation Report will need to be implemented prior to proceeding with an expanded implementation. Further, the State and project team should work with the retailers, now that they have had exposure to the system, to further refine the types of information required for terminal reports, report formation, and report frequency/availability.

Transaction Flow

To process a WIC EBT transaction, cashiers must first scan items through their register system scanner and then scan and hand key the price into the WIC EBT POS terminal. Once all items presented have been scanned and

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out into a statewide implementation with a more robust system and equipment. In a statewide implementation, more communication would be done with retailers at a corporate level, and a Retailer Help Desk would be more significantly involved with and utilized for addressing day-to-day operational issues. Also, integrated retailers would require much less support than those using state-provided EBT-only equipment.

their prices entered and confirmed, following the terminal's prompts, the cashier presses the [Yes] key to send the transaction to the Host for approval. If all items presented are WIC eligible and there is sufficient balance, the transaction is approved. If one or more items are not approved, the response received back from the Host tells the cashier to "Take Out" one or more items as necessary. The dual scanning, key entry of prices, and declined items process has been the areas of the most complaints and errors by cashiers.

If an item was denied due to an insufficient available balance, the item's UPC and subcategory description displayed on the terminal. The cashier could then remove the item and also deduct it from the register balance. If an item was denied because it was not WIC-eligible, only the UPC would be displayed on the POS terminal's screen. The cashier would then have to read the UPC and try to decide which item needed to be removed. It would take an inexperienced cashier a longer period of time to determine which item to remove. Most experienced cashiers would know not to ring up ineligible items. This reinforces the notion that for the transaction mode implemented in this demonstration, cashiers still required knowledge of the approved foods list. If this mode were implemented with a local UPC database, non-approved foods would be automatically identified and denied as scanned therefore not requiring cashiers to have an in depth knowledge of the approved foods.

Occasionally (especially in the beginning months of the project), items would be denied because they were not in the UPC database, even though cashiers were fairly sure they should be WIC-eligible. The state designed the WIC UPC Report Card form so retailers could report these incidents to them. This process is discussed more in Section 6.2 Washington State Summary, however none of the retailers ever used the report card. They reported all of their UPC issues through the Retail Manager.

For the future, to avoid or minimize having to dual-scan items, retailers will be encouraged to integrate WIC EBT transactions into their ECR's and commercial transaction sets. In the WIC EBT-only stand beside environment, dual scanning and key entry of prices is part of the process and unavoidable.

Some consideration should be given to a different way to handle denied items to possibly be more descriptive in the reply received back from the Host for example using the item description from the UPC table rather than the subcategory description. This along with the use of a local UPC database would help alleviate some of the confusion and frustration experienced by cashiers and the time it takes to search for and remove denied items from the WIC purchase. Most times, the items have already been put in a shopping bag, pending printing of the approved receipt.

Cashiers and managers felt that the WIC EBT transactions seemed to take a long time. Experienced cashiers could process paper WIC vouchers very

quickly so the perception was that the electronic transactions were taking longer. This may be due to the learning curve to become proficient in any transaction process. However, transaction timings showed that transaction timings between dial-up WIC EBT and WIC checks fell within the same time ranges. This is further described in the retailers' response to the survey question "How would you rate the speed of processing a WIC EBT purchase transaction (equipment and telecommunications)?"on page 68 of this document.

Managers at Safeway are appraised and receive their bonuses partly based on their stores' front-end throughput. Safeway's manager felt the WIC EBT electronic transactions detrimentally impacted front end productivity by affecting the speed of the Safeway's cashiers' ability to scan, bag, conduct the financial exchange, and send customers on their way and begin the next transaction. This, therefore, according to Safeway's store manager, had a negative effect on her financial bonus. It was also a subject on which the store manager would not elaborate.

Off-line Vouchers

A process was put in place for retailers to be able to process a minimal Prescription Benefit purchase of two cans of infant formula (only) when the POS terminals were not working or the system was not available. WIC EBT Off Line Prescription Benefit Voucher forms were developed and distributed with instructions for contacting the Retailer Help Desk to process them and then subsequent follow up to clear them. During the life of the project, there were never any major system outages or equipment malfunctions that made processing the WIC EBT Off Line Vouchers necessary. Therefore, the process was never tested.

Communications

The Omni 3750 terminal offers the flexibility of both built-in dial-up capability and Ethernet-based, always-on connection capability. Both types of telecommunications were used in this project.

Dial-up

For this project, all three retailers started out using the terminals via dial-up on regular business analog phone lines. Each of the terminals was connected to a separate phone line so that there would be no contention issues if two terminals (within the same store location) were attempting to do transactions at the same time.

High Speed

Prior to implementation and during the first few months of production, the project team continually tried to interest the retailers in attempting to connect and process transactions via high-speed connectivity. Safeway continued to tell the Project Team no. In late May, Associated Grocers

put Project Team members in touch with their telecommunications group to attempt high-speed connectivity through their existing network used for commercial debit/credit and food stamp EBT transactions for the other two locations. Mega Foods and Saar's became operational on TCP/IP high-speed connectivity on September 9 as a result of the Retail Manager's active involvement and coordination efforts between SVS, the retailers, and Associate Grocer's telecommunications group in getting the connectivity established and completed.

Communication Errors

On dial-up, all three retailers experienced intermittent, infrequent communication error problems. The communication errors did not occur with every transaction or even every day. Two Project team members spent two days on-site on 7/20 and 7/21/2005 at each of the three retailer locations with a laptop and a telecommunication troubleshooting program attempting to diagnose the communication error's occurrence. During that time, they were not able to witness the communication error and diagnose it, or duplicate it.

The retailers were asked to log and report the occurrences on a weekly basis. The problem continued to be intermittent and infrequent. The logs showed that over a period of 101 days, 51 communication errors occurred during purchase transactions. Compared to the total number of purchase transactions during that same time, 2,356, communication errors only occurred in 2.2 percent of purchases. Communication errors during settlements seemed to happen slightly more often. There were 40 incidents logged which were associated with settlement transactions representing 4.3 percent of all settlements during that time period. Due to the manual nature of the process it is possible some incidents may have been overlooked; however, it is believed that the logs represent the majority of the incidents. The logs indicate that while the communication errors did occur, they may not have been as frequent as they were perceived to be by the retail staff. It has been noted that when communication errors did occur they slowed down the transaction because of the need to restart the terminal or take the customer to another lane. So when they occurred, cashiers became flustered at times and worried about customers waiting and getting agitated, and therefore became a major concern.

SVS continued working in their test lab to duplicate and resolve the issue. On 8/19/2005, a POS software enhancement was put in the WIC EBT POS terminal in Safeway's Lane 3, the busiest WIC EBT terminal of the project. The enhancement was anticipated to solve the problem. The enhancement of 8/19 reduced the number of communication errors but it did not eliminate them. The project team continued to monitor communication error activity in all terminals by having the retailers log the incidents and report them weekly until 11/07. On 10/13 the same

communications enhancement was added to the software in all the terminals, in addition to other updates done at the same time. At that time, the Retail Manager also placed one comma in front of the phone numbers the terminals were dialing to give the terminals three additional seconds of time to grab the phone line. The Communications enhancement plus the additional three seconds appeared to help reduce the number of communication errors, but still did not eliminate them.

After getting Mega Foods and Saar's operational on high-speed connectivity, it was anticipated that their occurrences of communication error problems would be eliminated, although some still occurred. However the communication errors were significantly reduced. An issue existed where it was impossible to tell if the communication errors were occurring in dial-up or high-speed mode. Until 10/31, the terminals reverted to Dial-up mode if they had to be power-failed for any reason. The retailers had been in the habit of power-failing the terminals for almost any type of error situation, including communication errors, and had to manually reset the TCP/IP high-speed mode. On 10/31 an additional software enhancement was put in place to change the default Communications Mode setting so when/if the terminal was power-failed for any reason, the terminal came back to the last used Communication Mode. This resolved the issue of reverting back to the dial-up mode during a power-fail of the terminal.

The front end supervisor at Mega Foods was very good about checking their terminals at the beginning of her shifts to make sure they were in high-speed mode. Saar's supervisory associates were not as diligent about checking to see what connectivity mode the terminals were in, and even though they had been provided with instructions on how to switch it, they told the Retail Manager during a visit that they did not know how to. Because of this it was never determined if communication errors occurred in high-speed IP mode.

In early October, Safeway finally agreed to allow the project partners to attempt to get their terminals processing WIC EBT transactions in a high-speed environment via DSL. Up to that time, they had continually said No to attempting to connect their WIC EBT terminals through their internal high-speed network used for their registers and commercial POS terminals. DSL service was ordered and modems where shipped. SVS began testing to make sure the DSL connectivity would work through to their network and to the Host computer. The decision to not implement DSL was made because of the manual installation required on-site, and the impending end of the demo. Without concrete, static IP setup prior to installation, the team decided not to risk the installation at Safeway. DSL high-speed connectivity was never established for Safeway's WIC EBT terminals.

The nature of dial-up connectivity for POS terminals is such that occasional communication errors will occur. The communication error

problem occurred during the demonstration, although less often after the software upgrades, in both high-speed and dial-up modes until the end of the project. Based on retailer feedback, this issue did play a role in the satisfaction of the system by the retailers even though the logs showed that they occurred in only one out of every fifty transactions. It appears that there was a perception that they may have occurred more frequently.

System Response Times

When transactions made their way all the way to the WIC EBT host and back, they completed as expected, whether in dial-up or high-speed modes. There were only two system outages that were recalled during the course of the Project that impaired retailers' ability to process transactions. Both only lasted a short time and had no impact on retailers' ability to process transactions, as far as Project Team members were able to determine. The outages were scheduled, but an internal procedural issues delayed notification to the SVS project team members in order to notify the retailers of the planned outage.

Retailer Support

Retailers had several options for getting assistance during the demonstration. Due to the limited scope, most calls were made to the retail manager who was able to easily manage the volume. She also initiated frequent contacts with the retailers by phone or email. The following describes the customer service support available to the retailers.

Retailer Customer Service (SVS)

Access to a Retailer Help Desk was set up and SVS Help Desk staff were trained in the basic transactions and reporting functions of the WIC EBT-only terminals. Help Desk associates were also given access to viewing retailer activity information via the HUI. The Help Desk received very few calls from the three participating retailers during the course of the Project. According to Help Desk statistical information, retailers called a few times to inquire about WIC ACH deposit amounts and for an equipment issue during hours they thought the Retail Manager would not be available.

State WIC Help Desk

State WIC Help Desk staff had agreed to provide POS equipment support as needed. There was not adequate opportunity prior to beginning production to sit down with State WIC Help Desk staff and train them on what they might be called on to do. And, actually, Project Team members were not quite sure what the need for or level of support might be. There was only one terminal that malfunctioned during the Project that needed to be replaced. The Retail Manager worked with one State WIC Help Desk associate directly, with John Fleener's direction, to download and replace

the one terminal. State WIC Help Desk staff also loaded and replaced one version of software at all stores – validating project-provided documentation in the process.

Retail Manager

Because of the relationships the Retail Manager had developed with the retailers, the on-site support she provided during training and installation, and subsequent follow up visits that became necessary, the majority of the retailer representatives were inclined to call her instead of the Retailer Help Desk when issues arose. Because of the 'newness' of most aspects of the Project and the fact that there were only three retailer locations participating, being available to them 24x7 was acceptable to her. She wanted to be aware of issues as soon as possible so she could respond quickly or seek assistance as needed. Had there been significantly more participating retailer locations, she said she may not have been able to handle the number of calls and it would have become much more necessary to direct them through the Retailer Help Desk.

Inventory Management

With three retailer locations and a total of 12 terminals and nine scanners in place, and only one terminal replacement issue during the course of the Project, equipment inventory was fairly easy to manage.

When Washington expands WIC EBT into larger geographic areas with more retailer participation, an inventory management system will need to be in place. Ideally, inventory management (tracking and replacement) should be part of a retailer information database. How inventory is managed will be dependent on decisions about how many retailers will need state-provided WIC EBT-only terminals and who will own, deploy, and maintain the equipment. Procedures will need to be developed for how and who will be responsible for terminal and scanner deployment and maintenance.

Supplies

The Omni 3750 terminals have integrated thermal printers. Therefore, the only supplies needed for the WIC EBT terminals for this Project were the rolls of prescribed thermal paper. The WIC EBT Project partners agreed to provide rolls of paper to the retailers for the duration of the project. It was originally intended that retailers would contact the Retailer Help Desk when they got low on paper to request an additional supply. Procedures for how the requests would then be addressed were never developed. This was partly because the Retail Manager visited the retailer locations approximately once a month and as part of her visit process, she checked their POS paper supply upon arrival and provided more as needed. During one visit, Mega Foods' bookkeeper told her she had purchased one 12-

pack of paper rolls when they had gotten low during the previous month. When the Retail Manager offered to reimburse Mega Foods, she declined.

Expansion plans will need to include decisions about who will be responsible for providing paper to retailers who use state-provided WIC EBT-only equipment. This decision may be dependent on who owns and maintains the WIC EBT equipment. Will retailers be responsible for obtaining paper themselves? Will the equipment vendor be responsible for providing paper? Or, will retailers receive some sort of credit via ACH, possibly based on the number of WIC EBT transactions they perform monthly, to help them defray the cost of POS paper, similar to what is done in many states for the food stamp EBT-only terminal environment.

Documentation

MAXIMUS was responsible for providing POS Terminal user documentation to the retailers and Help Desks. A Retailer's POS Procedures Manual, Troubleshooting Procedures, and a Quick Reference Guide were developed. Expansion plans will need to include revisions to the documentation. Further input from the retail community should be considered as part of updates to the documentation.

Summary of Retailer Experience and Perceptions

The retailers believe their experience was mostly good in that the demonstration did what it intended to do. It demonstrated that doing WIC EBT transactions online, real time is possible. Store management had volunteered to participate. They knew that as a demonstration project, they would be on the front line of testing the system. Although the POS terminals were fairly easy to use, there were some challenges. The transaction flow caused some issues and minor confusion. Due to the limited size of the demonstration (300 households) there were not enough transactions for all cashiers to get a lot of practice and experience. As a result, they tended to become easily flustered when problems arose. The intermittent communication errors caused them frustrations too.

Except for an issue with the Auto Reconciliation report, all reports functioned properly. Safeway attempted to use the Auto Reconciliation reports that had problems with displaying information, which made them difficult to use. Mega Foods and Saar's chose to use a different combination of reports for their reconciliation and not report any issues with terminal reports.

Although the system had some problems, they were not insurmountable. Most issues were associated with software and can be remedied through additional development and enhancement of the terminal software. Retailers agreed WIC EBT will make their back office process simpler and more manageable once the process is refined further using the input from the participating retailers. However even during the demonstration some of the bookkeepers indicated that they had fewer issues with rejected

WIC checks during the WIC EBT project. An overall feeling of the retailers was that the stand-beside terminal and processes did not fit in with their operations. They felt that an integrated solution was needed to support WIC EBT operations in their stores. There will likely always be a need for stand-beside terminals for those stores that are unable or unwilling to integrate. Because the stores in this demonstration are not necessarily candidates for a stand-beside system, further testing should be completed to determine how the stand-beside functions in a more appropriate environment (once enhancements have been implemented).

4.3. Survey Responses

Retailers were asked to complete a brief survey to provide their feedback on their experience and opinions on the WIC EBT demonstration. It was requested that the survey be distributed to all staff in each store that participated in the demonstration whether they frequently used the system or had some exposure to WIC EBT. It is believed that the 29 responses received represent the majority of staff that had some participation in the WIC EBT demonstration from each store.

General Information

An initial set of questions were asked of all respondents in order to determine the type of staff and their level of experience in retail and with the WIC EBT equipment. This information was used in the analysis of later question responses to determine if there were any trends between different staff types.

Responsibilities

There were a total of 29 respondents to the survey among the three retail sites. Respondents were asked to identify their area of responsibility within their store. They could select more than one, for example a manager who also works in-lane as a cashier would select both Management and Cashier/Clerk. The following provides the break out of respondents' areas of responsibility.

Areas of Responsibility		
Responsibility	***Number of Responses***	***Percentage of Responses***
Cashier/Clerk	24	66.67%
Bookkeeper	5	13.89%
Management	5	13.89%
Other	2	5.56%
Total	**36**	

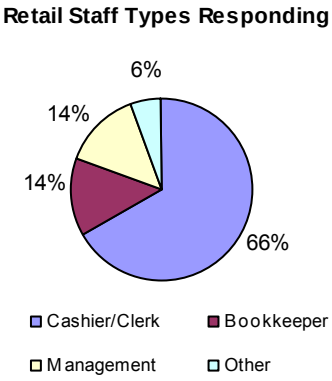


Exhibit 4-5: Retailer Survey Results – Areas of Responsibility

The two responsibilities defined as "Other" were further described as Mentor and Person-in-Charge (PIC).

Retail Experience

Respondents were asked about the length of time in their current position and length of time employed by their current employer in any position. Note that not all respondents answered the second question. The analysis of responses to these questions has been provided in the tables below.

The table provides a break down of staff length of time in their current position for specific year ranges as well as the average number of years between all of the respondents. In looking at the break down, it was determined that 5 years was a break-even point for grouping respondents. 14 staff had five or less years experience in their current position and 13 staff had more than five years experience.

Length of Time in Current Position	
0 – 2 Years	6
2+ - 5 Years	8
5+ - 10 Years	5
10+ - 20 Years	3
20+ Years	5
Summary	
0 – 5 Years	14
5+ Years	13
Average Years in Position	**8.6**

Exhibit 4-6: Retailer Survey Results – Retail Experience (1)

The following table provides the break out of the responses to how many years the respondents had been employed by their current employer. As in the previous question the break-even point was also 5 years with 9 staff employed for 5 years or less and 9 staff employed for more than 5 years. Note that not all respondents answered this question.

Length of Time Employed by this Retailer in Any Position	
0 - 2 Years	2
2+ - 5 Years	7
5+ - 10 Years	5
10+ - 20 Years	3
20+ Years	1
Summary	
0 – 5 Years	9
5+ Years	9
Average Years Employed	**7.2**

Exhibit 4-7: Retailer Survey Results – Retail Experience (2)

Based on the responses to these questions, survey responses would be grouped and analyzed based on experience using 5 years or less as one group and 5 or more years as another group.

The following exhibit depicts the respondents' retail experience. It provides an overview of experience in their current position versus employment with the current retailer in any position.

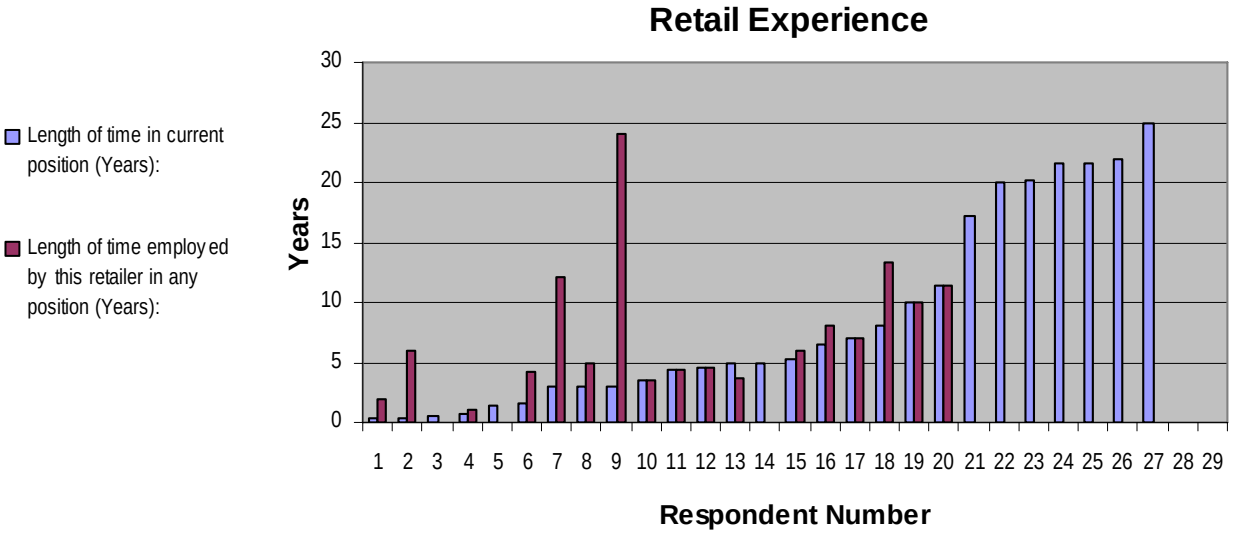


Exhibit 4-8: Survey Respondent Retail Experience

Use of the WIC EBT Equipment

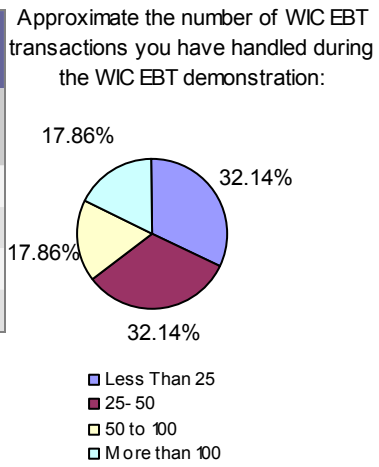
Another group that would need to be considered in the analysis of the survey responses was how experienced the respondents were with the WIC EBT terminal. Management and other staff noted that those who used the terminal less frequently tended to have more difficulties, mainly because they were not as familiar with the equipment and processes. Additionally, because of the limitations of the demonstration, each store saw relatively few transactions per day, which meant that some staff were not using the equipment frequently or had many opportunities to practice with actual customers. Transaction history shows the following daily averages for each of the retailers.

- Retailer 1 – 4.1 transactions per day
- Retailer 2 – 2.4 transactions per day
- Retailer 3 – 10.6 transaction per day

As part of the analysis, light user and heavy user responses were grouped in order to determine if their opinions or perceptions differed. To determine these groupings the respondents were asked in the survey to estimate the number of transactions they processed during the demonstration. The following table provides the break out of these responses.

Number of Transaction Processed During the Demonstration		
Number of Transactions	**Number of Responses**	**Percentage of Responses**
Less Than 25	9	32.14%
25- 50	9	32.14%
50 to 100	5	17.86%
More than 100	5	17.86%

Exhibit 4-9: Retailer Survey Results – Number of Transaction Processed During the Demonstration



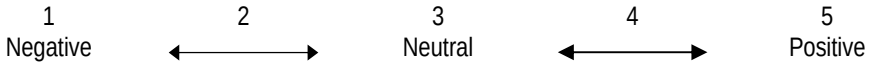
Not surprisingly, relatively few respondents indicated that they frequently performed transactions. Retail staff stated that the more experienced or proficient staff were assigned to the lanes with the WIC EBT terminal. Additionally, those indicating infrequent use also include management and bookkeeping staff who may have used the terminal in-lane, but much less frequently that the cashier/clerks.

Because there were fewer respondents who identified themselves as having preformed "50 to 100" or "More than 100," it is difficult to analyze these groups individually with any significance. For analysis purposes

these two groups would be combined to be the "Heavy User" group and those with 50 transactions or less would be considered the "Light User" group.

All Respondent General Questions

All respondents were asked to answer to a set of general topics that were relevant to all users. For each statement, respondents would rate their experience on a scale of 1 to 5 with 1 being Negative, 3 being Neutral and 5 being Positive.



The statements were as follows:

1. Customer service support (On-site from MAXIMUS)?
2. Customer service support (Toll-Free Customer Service Line)?
3. The quality of training you received on the WIC EBT system?
4. The amount of training you received on the WIC EBT system?
5. The amount of reference materials you received for the WIC EBT system?
6. The clarity/relevance the of reference materials you received for the WIC EBT system?
7. Feedback you received from WIC EBT cardholders related to the WIC EBT system?
8. Your overall feelings about WIC EBT?

The responses to these statements have been provided on the following pages. Responses were group by staff responsibilities (Management, Bookkeeper, and Cashier/Clerks). Cashier/Clerk responses were further grouped by retail experience and experience using the WIC EBT equipment.

Customer Service

The following tables show that the majority of respondents had neutral to positive feelings toward the customer service they received during the demonstration. Because of the limited size, the MAXIMUS retail manager provided the majority of the customer service support. She was able to frequently be on-site and provide relatively hands-on support that would likely not be possible in a larger rollout. The Retail Manager's contact was mainly with managers, bookkeepers, and head cashiers/trainers. Due to her availability to the retailers, it was generally not necessary to contact the SVS customer service line; therefore, relatively few staff had experience with SVS Customer Service.

1. Customer service support (On-site from MAXIMUS)?																
Rating	**All Respondents**		**Management**		**Bookkeepers**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
1	1	6%	0	0%	0	0%	1	7%	0	0%	1	13%	1	9%	0	0%
2	1	6%	0	0%	0	0%	1	7%	0	0%	0	0%	0	0%	1	25%
3	4	22%	0	0%	0	0%	4	29%	**1**	**33%**	**3**	**38%**	4	36%	0	0%
4	**9**	**50%**	**3**	**75%**	**3**	**100%**	**6**	**43%**	**1**	**33%**	**3**	**38%**	**5**	**45%**	**2**	**50%**
5	3	17%	1	25%	0	0%	2	14%	**1**	**33%**	1	13%	1	9%	1	25%
Total	**18**		**4**		**3**		**14**		**3**		**8**		**11**		**4**	

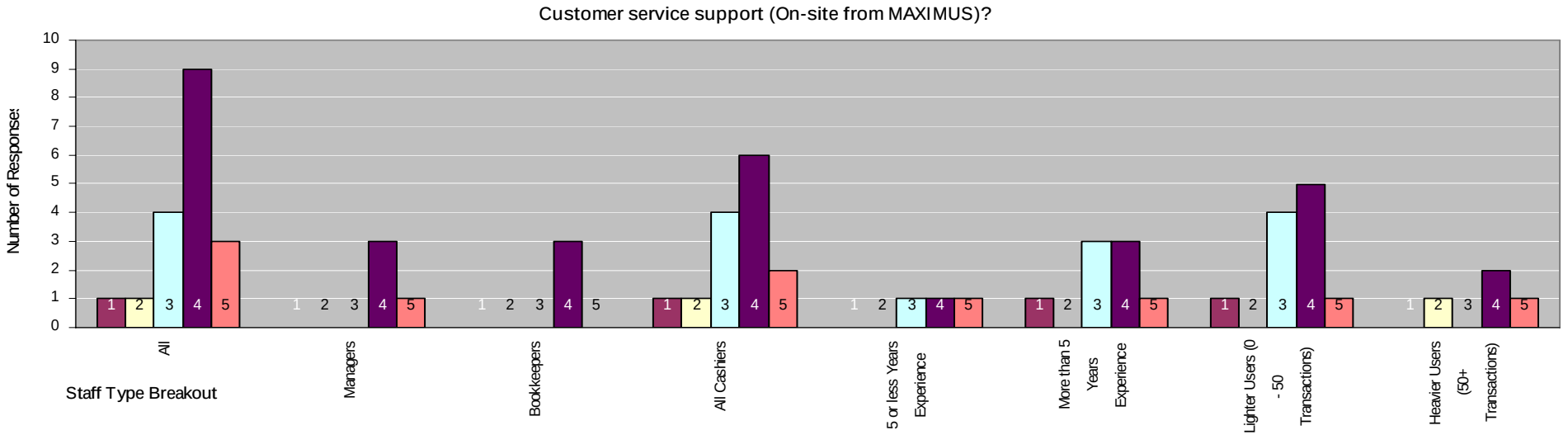


Exhibit 4-10: Retailer Survey Results – Customer Service (1)

2. Customer service support (Toll-Free Customer Service Line)?																
Rating	**All Respondents**		**Management**		**Bookkeepers**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
3	**4**	**67%**	**1**	**50%**	0	0%	4	**67%**	**2**	**100%**	**2**	**100%**	**4**	**100%**	0	0%
4	2	33%	**1**	**50%**	**1**	**100%**	2	33%	0	0%	0	0%	0	0%	**2**	**100%**
5	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**6**		**2**		**1**		**6**		**2**		**2**		**4**		**2**	

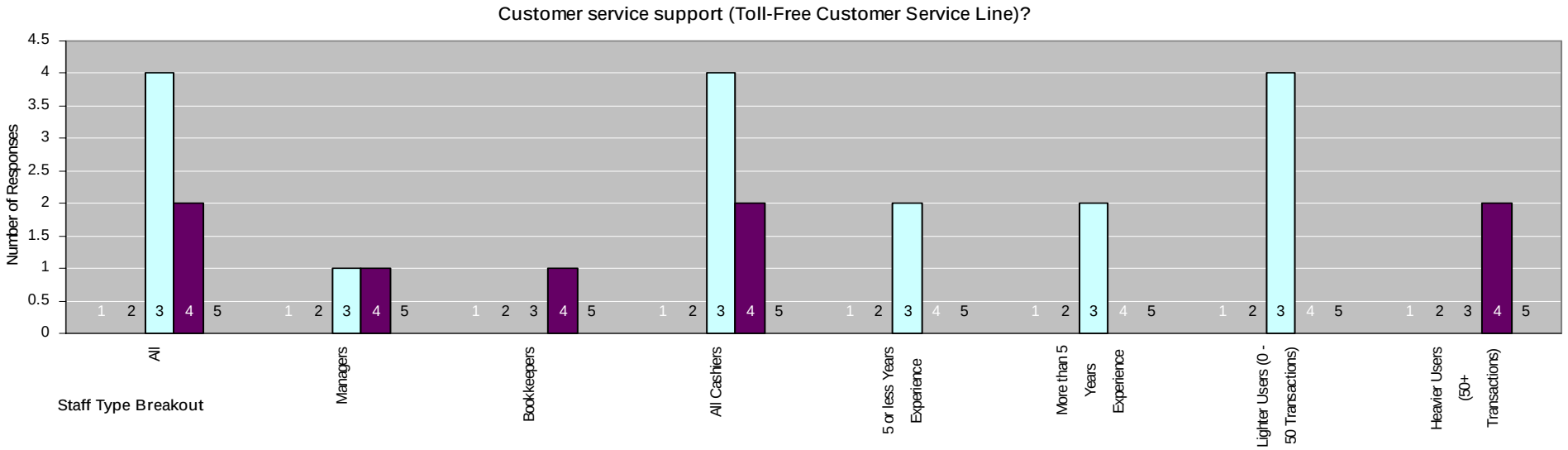


Exhibit 4-11: Retailer Survey Results – Customer Service (2)

Training

Initial training was provided to store staff by the MAXIMUS Retail Manager. Training was designed to be in a train-the-trainer format, but it was requested that the retailers schedule as many staff to attend the initial training as possible. Over a one week period, the retail manager trained all of the staff that attended the sessions set up at each store. However not all staff were able to be trained, as was indicated in one of the survey comments. The fact that some staff missed the training was an issue because they had to be trained by staff that were still familiarizing themselves with the equipment. The slow rollout of participants onto WIC EBT did not provide for much practice and, in the initial months, the stores did not have a training terminal on which to train and practice. After the initial training sessions, a designated member of the stores' staff was responsible for training new staff or providing refresher training. Based on retailer request, all stores were also provided with a training terminal by the third month of the project which could be used to run transaction for training purposes.

3. The quality of training you received on the WIC EBT system?																				
Rating	**All Respondents**		**Management**		**Bookkeepers**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
1	2	11%	**1**	**25%**	0	0%	2	13%	2	29%	0	0%	2	20%	0	0%
2	4	21%	0	0%	**1**	**33%**	3	19%	**3**	**43%**	0	0%	2	20%	2	29%
3	**6**	**32%**	**1**	**25%**	**1**	**33%**	**6**	**38%**	1	14%	**4**	**67%**	**3**	**30%**	**3**	**43%**
4	3	16%	**1**	**25%**	**1**	**33%**	3	19%	0	0%	2	33%	2	20%	1	14%
5	4	21%	**1**	**25%**	0	0%	2	13%	1	14%	0	0%	1	10%	1	14%
Total	**19**		**4**		**3**		**16**		**7**		**6**		**10**		**7**	

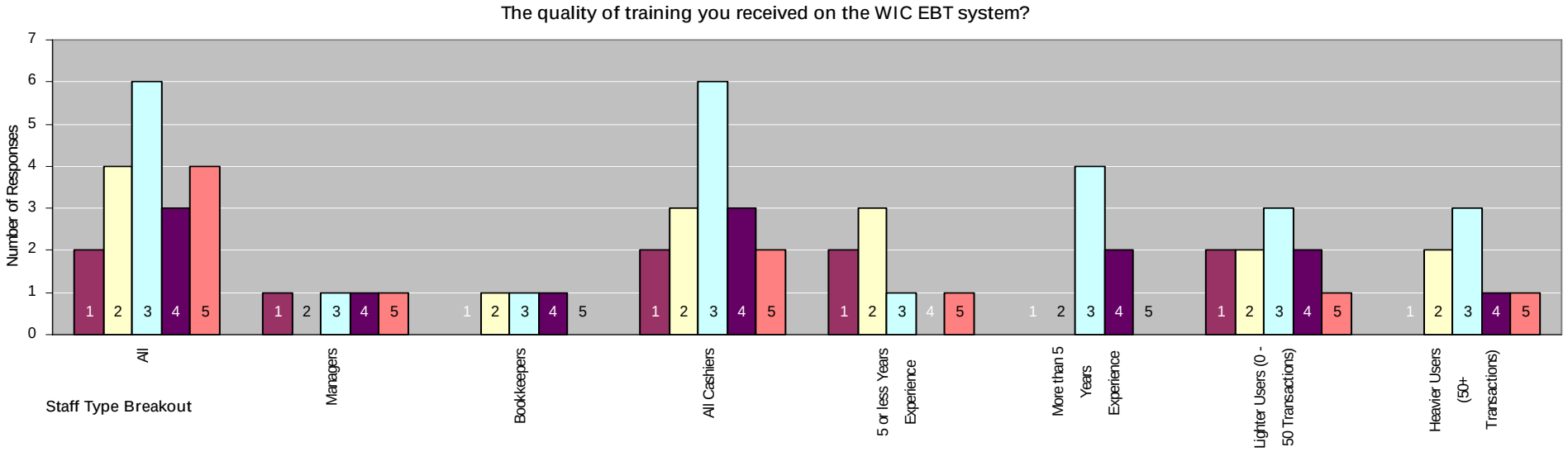


Exhibit 4-12: Retailer Survey Results – Training (1)

4. The amount of training you received on the WIC EBT system?																
Rating	**All Respondents**		**Management**		**Bookkeepers**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2	**7**	**39%**	**2**	**50%**	**2**	**67%**	**7**	**47%**	**3**	**50%**	**2**	**33%**	**4**	**44%**	4	**57%**
3	6	33%	0	0%	0	0%	4	27%	2	33%	**2**	**33%**	2	22%	2	29%
4	4	22%	**2**	**50%**	1	33%	3	20%	0	0%	**2**	**33%**	2	22%	1	14%
5	1	6%	0	0%	0	0%	1	7%	1	17%	0	0%	1	11%	0	0%
Total	**18**		**4**		**3**		**15**		**6**		**6**		**9**		**7**	

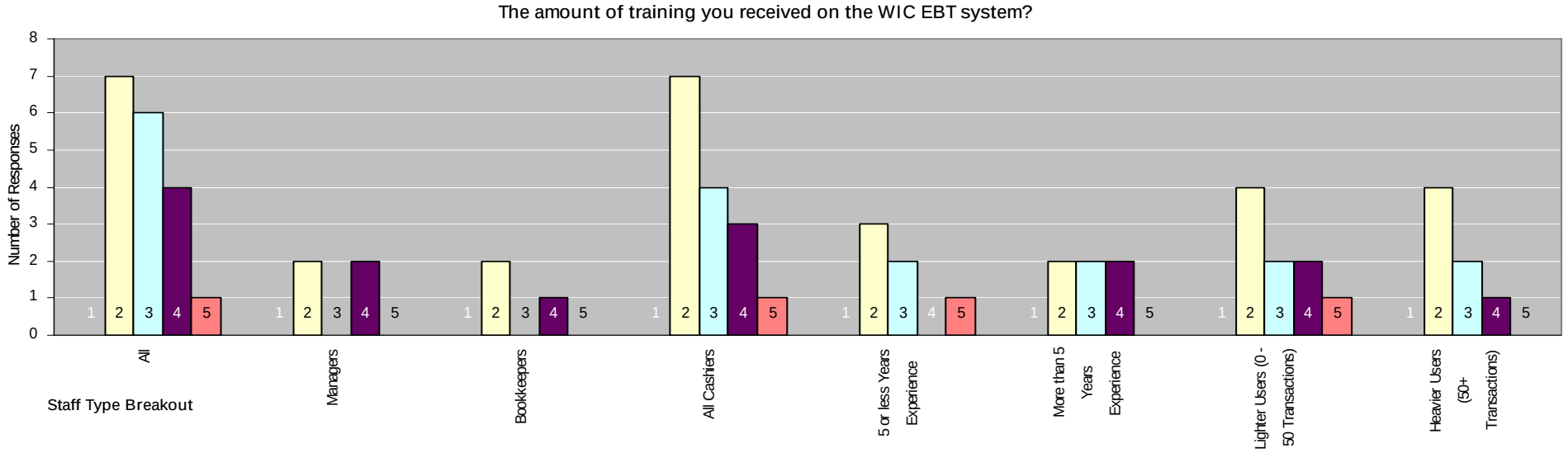


Exhibit 4-13: Retailer Survey Results – Training (2)

The survey responses showed that most staff had neutral to positive feelings toward the quality of the training they received. The staff with less retail experience and lighter users of the equipment tended to have more negative feelings regarding the quality of the training. Most groups felt that there could have been more training provided. According to State data collection, clients surveyed during the early stages of the project indicated the number of purchases that were denied and that took too long decreased 50 percent following the first month.[8] This could indicate that the clerks benefited from the additional practice.

Based on the feedback and the experience of the project team during the demonstration, several considerations should be made before future rollouts regarding training. These considerations include:

- Whether training should be a State or contractor responsibility.
- If it is a state responsibility, could it be combined with other vendor management activities?
- How training should be provided in terms of whether all retail staff are trained or if training should be done through a train-the trainer method.
- If all staff are trained initially:
  - How do you schedule training to ensure all staff are trained?
  - Who is responsible for follow-up training or training of new employees?
- What training should be provided to retailers with WIC EBT integrated into their ECRs.
- Should there be annual refresher training?
- What tools, equipment or training materials will be required?

Some of these questions cannot necessarily be answered until POS enhancements have been made. Lessons learned from the demonstration showed that some features of the stand-beside POS were not intuitive. Identification of which buttons supported certain features were not clear on the POS template (an adhesive label that is affixed on the POS on the key pad). In fact, due to time constraints a tailored WIC EBT template could not be produced, therefore some of the key labels on the template were incorrect causing confusion. Because POS operation was not self-explanatory, onsite training of all staff with frequent follow-up sessions were necessary to ensure that all staff understood how to perform EBT transactions. However even when trained, staff still had difficulties with some components of the transactions.

[8] 33 of 60 responses in June and 8 of 32 in July.

If the enhancement to the POS provide for more intuitive use of the terminal, it is possible that less training may be needed. The POS should be designed in a way so that navigation within a transaction is clearly identified through screen prompts requiring less training and initial knowledge about terminal operation. Training could then focus less on how to use the equipment and more on differences between environments as the store moves from paper to EBT. Ultimately, the State would want to have a system that does not require a significant training initial or ongoing effort as this adds cost to any implementation. Retailers would likely agree with a more streamlined training process since it is an inconvenience for them to pull staff from productive tasks or have staff come in during off hours to receive training.

Another consideration is that it is anticipated that in a future implementation, stores will integrate WIC EBT into their ECRs. Overall responsibility will be on the chain or the store to provide training, however consideration will need to be made as to what training, if any, should be provided by the state or the state's contractor.

Training Materials

All stores received a user manual for the WIC EBT terminal and related processes. The document was also to be used as a training manual. The manual included step-by-step instructions on how to complete each transaction type, reporting, end-of-day procedures, and reconciliation procedures. The document included troubleshooting tips and contact information. A quick reference guide of common transactions was as provided for use in lane. All materials were based on the types of training materials provided for EBT used for Food Stamps and cash benefits.

The following tables provide retailer staff feedback on the training materials.

The survey responses showed that the majority of staff had neutral to positive feelings about the amount and clarity/relevance of training material that they received. Staff with less retail experience and lighter users of the WIC EBT equipment tended to have more negative feelings about the clarity/relevance. The assumption is that in the case of the lighter users, they may have had less exposure to the training materials.

5. The amount of reference materials you received for the WIC EBT system?																
Rating	**All Respondents**		**Management**		**Bookkeepers**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
1	1	6%	0	0%	0	0%	1	7%	1	14%	0	0%	1	10%	0	0%
2	3	18%	0	0%	0	0%	3	20%	2	29%	1	20%	2	20%	1	17%
3	**8**	**47%**	**1**	**33%**	**2**	**67%**	**6**	**40%**	**3**	**43%**	**2**	**40%**	**3**	**30%**	**4**	**67%**
4	2	12%	**1**	**33%**	1	33%	2	13%	0	0%	1	20%	2	20%	0	0%
5	3	18%	**1**	**33%**	0	0%	3	20%	1	14%	1	20%	2	20%	1	17%
Total	**17**		**3**		**3**		**15**		**7**		**5**		**10**		**6**	

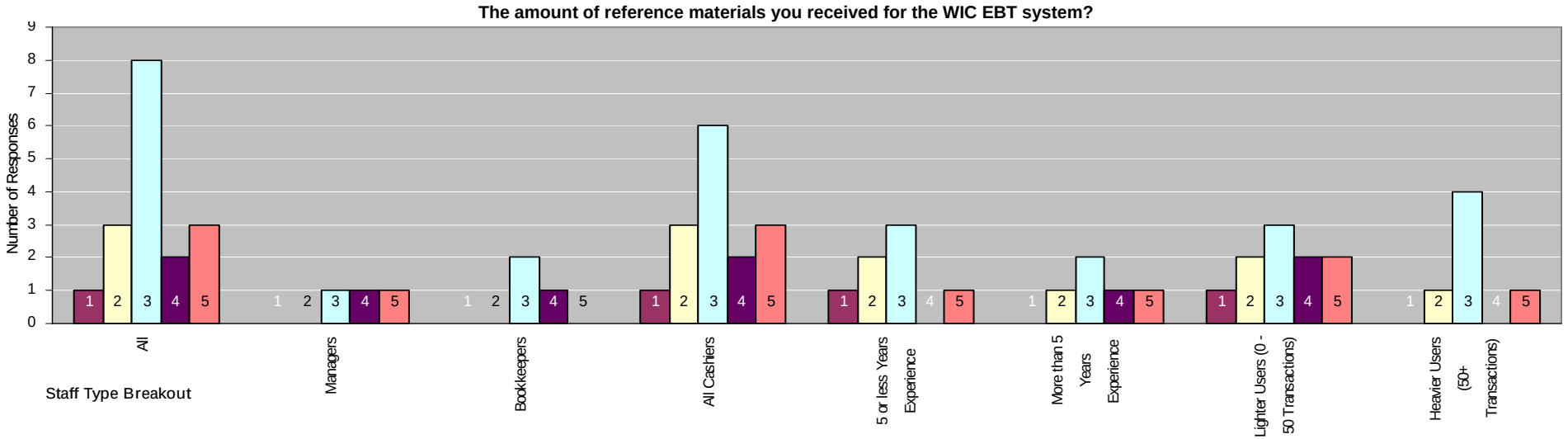


Exhibit 4-14: Retailer Survey Results – Reference Materials (1)

6. The clarity/relevance the of reference materials you received for the WIC EBT system?																
Rating	**All Respondents**		**Management**		**Bookkeepers**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
1	1	6%	0	0%	0	0%	1	7%	1	14%	0	0%	1	10%	0	0%
2	5	28%	0	0%	0	0%	5	33%	**4**	**57%**	1	20%	**3**	**30%**	2	33%
3	**7**	**39%**	**2**	**50%**	2	67%	**6**	**40%**	1	14%	**2**	**40%**	**3**	**30%**	**3**	**50%**
4	3	17%	1	25%	**1**	**33%**	2	13%	1	14%	1	20%	2	20%	1	17%
5	2	11%	1	25%	0	0%	1	7%	0	0%	1	20%	1	10%	0	0%
Total	**18**		**4**		**3**		**15**		**7**		**5**		**10**		**6**	

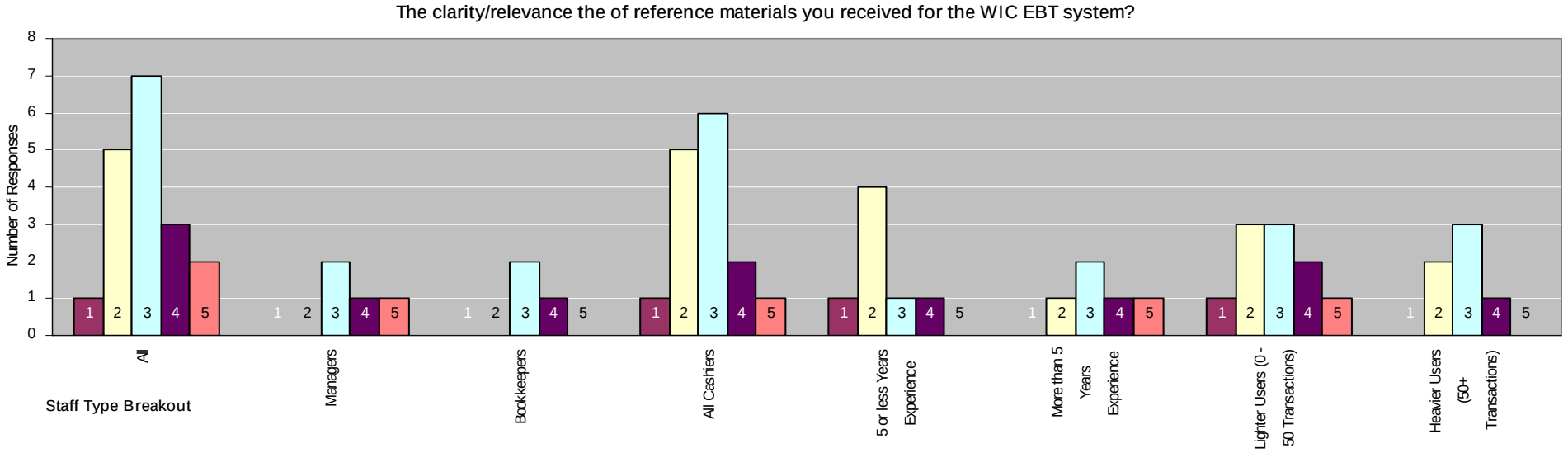


Exhibit 4-15: Retailer Survey Results – Reference Materials (2)

Prior to any future rollout of the system, additional feedback should be elicited from the retailer community to identify the types of materials that they believe would be most helpful to them for daily operations, general reference, and training purposes. Based on the responses to the questions above, there is room for improvement. By engaging the retailers in the processes, they can provide input on types of materials, level of detail and topics to be covered.

Client Feedback

The respondents indicated neutral to negative feedback from WIC EBT cardholders. This is in contrast to the overwhelming positive response that was reported in the client (i.e., cardholder) survey. It is likely that cashiers only received feedback from cardholders when they had a negative experience. If the transaction was completed without any issues, there may have been not reason for the cardholder to provide feedback or make a comment.

7. Feedback you received from WIC EBT cardholders related to the WIC EBT system?																		
Rating	**All Respondents**		**Management**		**Bookkeepers**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
1	7	26%	1	20%	0	0%	5	23%	3	43%	1	8%	3	20%	2	22%
2	5	19%	1	20%	**2**	**50%**	4	18%	0	0%	3	25%	4	27%	1	11%
3	**10**	**37%**	**3**	**60%**	1	25%	**9**	**41%**	**4**	**57%**	**4**	**33%**	**5**	**33%**	**4**	**44%**
4	4	15%	0	0%	1	25%	3	14%	0	0%	3	25%	3	20%	1	11%
5	1	4%	0	0%	0	0%	1	5%	0	0%	1	8%	0	0%	1	11%
Total	**27**		**5**		**4**		**22**		**7**		**12**		**15**		**9**	

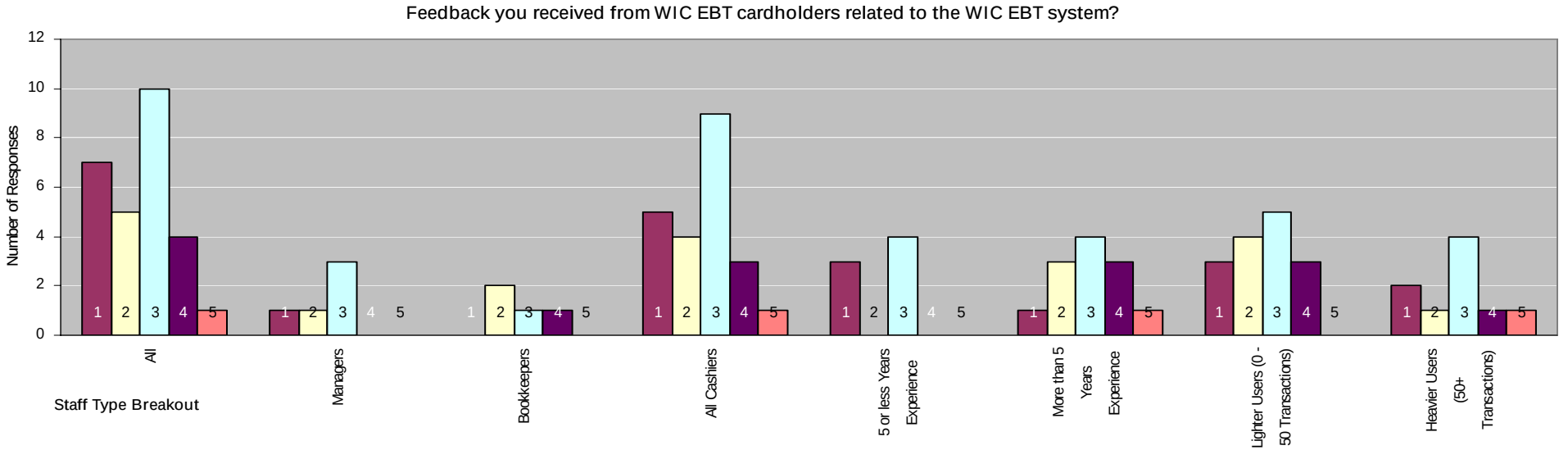


Exhibit 4-16: Retailer Survey Results – Client Feedback

Overall Feelings

The overall feelings of the respondents were somewhat split. Just under 43 percent indicated that they had negative feelings (1 or 2 ratings) toward WIC EBT – these responses were split evenly between the 1 and 2 ratings. The remainder 57 percent rated their feelings as 3 – 5 neutral to positive. Survey comments stated that WIC EBT is a great concept and will be good for everyone once some improvements are made while others indicated that they preferred checks to EBT. Within the cashier groups, those with more experience or more use of the WIC EBT equipment tended to have more positive feelings. This can be attributed to the fact that they may have been more familiar or comfortable with the equipment and therefore had a better user experience.

8. Your overall feelings about WIC EBT?

Rating	All Respondents		Management		Bookkeepers		All Cashiers		*5- Years Experience*		*5+ Years Experience*		*Lighter Users (50- Transactions)*		*Heavier Users (50+ Transactions)*	
1	6	21%	0	0%	0	0%	5	22%	2	25%	3	25%	4	25%	1	11%
2	6	21%	1	20%	1	25%	4	17%	2	25%	1	8%	3	19%	2	22%
3	**7**	**25%**	**2**	**40%**	1	25%	**7**	**30%**	**4**	**50%**	2	17%	**6**	**38%**	1	11%
4	**7**	**25%**	**2**	**40%**	**2**	**50%**	5	22%	0	0%	**4**	**33%**	3	19%	**3**	**33%**
5	2	7%	0	0%	0	0%	2	9%	0	0%	2	17%	0	0%	2	22%
Total	**28**		**5**		**4**		**23**		**8**		**12**		**16**		**9**	

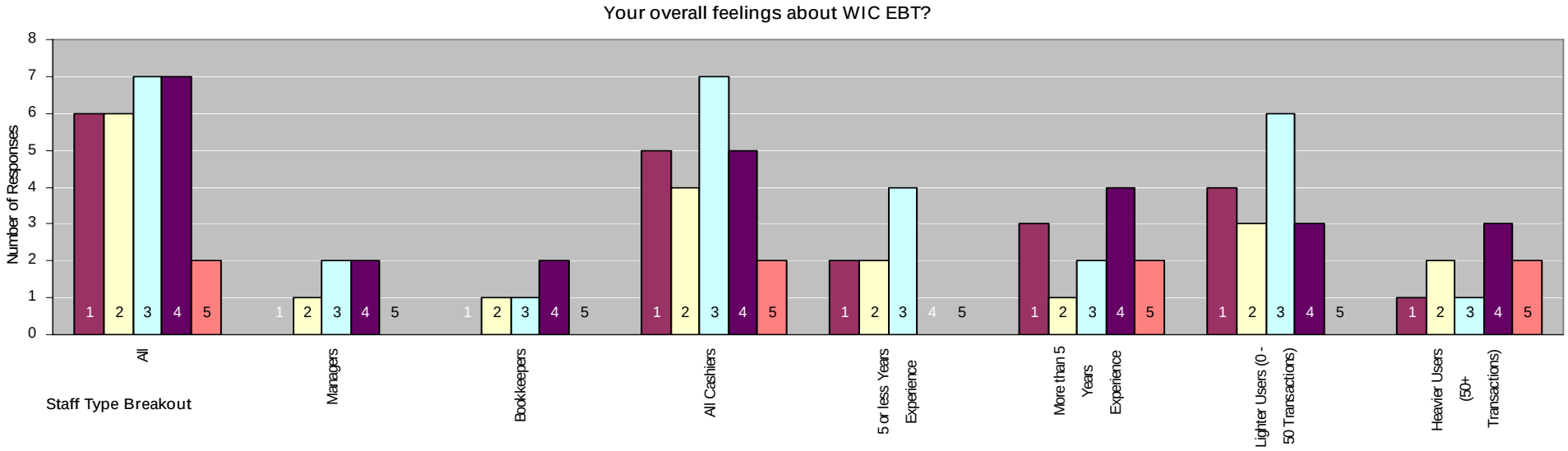


Exhibit 4-17: Retailer Survey Results – Overall Feelings about WIC EBT

Cashier Questions

Equipment Proficiency

To determine how difficult it was to use the WIC EBT terminal, cashiers were asked to estimate how many transactions they performed before they felt proficient with the equipment. Note that this was a freeform question and respondents could enter any number. The 23 responses to this question ranged from 1 transaction to 10 with the average number being 5.4. The responses to this question were somewhat surprising since many cashiers, particular those who did not regularly use the equipment, indicated they still had difficulty completing transactions.

Frequency of Transaction Events

During the demonstration, it was noted by the retailers that were occurrences of communication errors and situations such as confusion over ineligible items that required the cashier to restart transactions. To determine how widespread these issues were, several questions were asked to ascertain the cashiers' perceptions of how often these events occurred. Responses to these questions could be:

Few	Some	Many	All
(10% or less)	(10 % to 50%)	(50 % to 90%)	(90 % or more)

The questions asked were as follows:

10. During the demonstration, how many WIC EBT transactions would you estimate you had to restart due to an error?
11. How many transactions would you estimate that you had to help WIC EBT cardholders use the WIC EBT terminal to swipe their card and enter their PIN?
12. How many transactions would you estimate that WIC EBT cardholders brought ineligible food items through the lane?
13. How many transactions would you estimate that WIC EBT cardholders brought WIC eligible food items through the lane that were not part of their remaining card balance?
14. How many transactions would you estimate that you required assistance from a manager or other cashier to complete a WIC EBT purchase?

The responses to these statements have been provided on the following pages. Responses were group by staff responsibilities (Management and Cashier/Clerks). Cashier/Clerk responses were further grouped by retail experience and experience using the WIC EBT equipment.

Restarts: The majority (50 percent) responded that they had to restart "Some" transactions due to an error while another large group of respondents (42 percent) stated that they had "Few" restarts because of errors. When looking at the group breakouts of responses it appears that those with more years in retail had less restarts than those with less experience, but those who were the heavier users of the WIC EBT equipment had more restarts than the lighter users. It is possible that the heavier users may have had a perception of more restarts per transaction because they were the primary cashiers for WIC EBT and saw more transactions overall than the other staff and therefore saw more restarts as a whole. However this is also the same group that was the most satisfied with the WIC EBT terminal.

10. During the demonstration, how many WIC EBT transactions would you estimate you had to restart due to an error?												
Rating	**All Respondents**		**Management**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
Few (10% or less)	10	42%	2	40%	8	38%	1	14%	**6**	**55%**	**7**	**50%**	1	13%
Some (10 % to 50%)	**12**	**50%**	**3**	**60%**	**11**	**52%**	**4**	**57%**	5	45%	5	36%	**7**	**88%**
Many (50 % to 90%)	1	4%	0	0%	1	5%	1	14%	0	0%	1	7%	0	0%
All (90 % or more)	1	4%	0	0%	1	5%	1	14%	0	0%	1	7%	0	0%
Total	**24**		**5**		**21**		**7**		**11**		**14**		**8**	

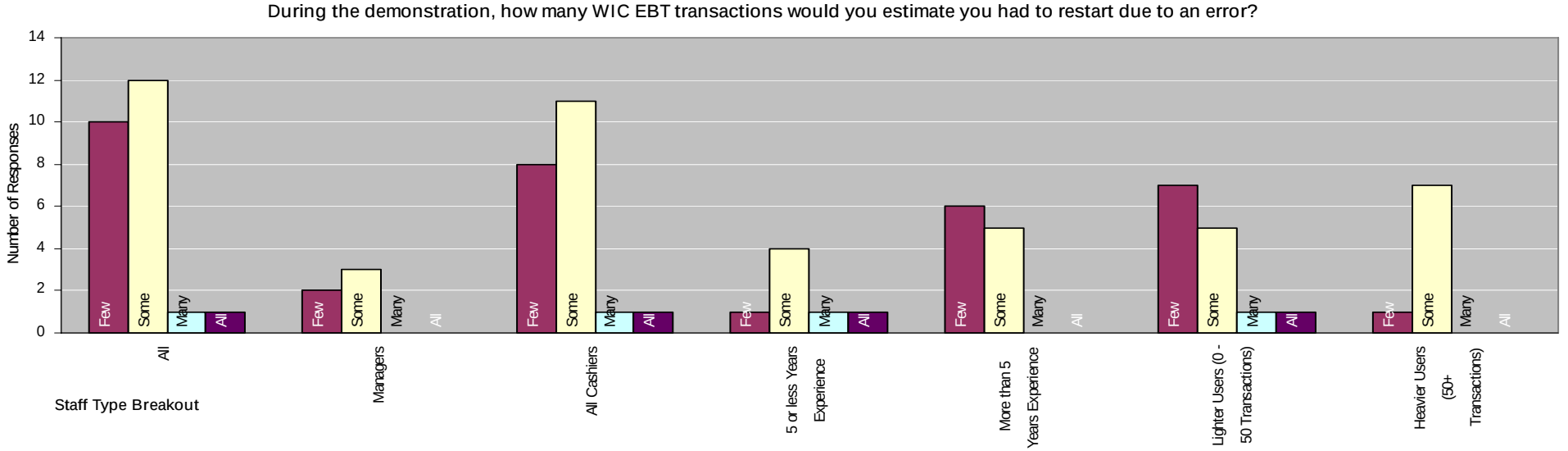


Exhibit 4-18: Retailer Survey Results (Cashiers) – Frequency of Restarts

Helping Cardholders: The responses to this question indicate that the majority (50 percent) of respondents had to help "Few" cardholders swipe their card, however 46 percent of all respondents indicated that they had to help "Some" cardholders. Cashiers were split evenly between "Few" and "Some." Comments by at least one respondent stated that many cardholders had trouble swiping their card so they always swiped the card for the cardholder. This appears to be a minority opinion with only one respondent selecting "All" as a response to this question. Many other comments indicated that most people had no trouble with their card. Some stated that they had to swipe the card because of the location of the WIC EBT terminal, which was sometimes awkward for the cardholder to reach. Additionally, it was noted in by the Retail Manager that most cashiers completed the customer confirmation for the transaction because it was easier. This is a business rule and design and issue for the future system.

11. How many transactions would you estimate that you had to help WIC EBT cardholders use the WIC EBT terminal to swipe their card and enter their PIN?

Rating	All Respondents		Management		All Cashiers		*5- Years Experience*		*5+ Years Experience*		*Lighter Users (50- Transactions)*		*Heavier Users (50+ Transactions)*	
Few (10% or less)	**13**	**50%**	**4**	**67%**	**11**	**48%**	**4**	**50%**	**6**	**50%**	7	44%	4	**50%**
Some (10 % to 50%)	12	46%	2	33%	**11**	**48%**	3	38%	**6**	**50%**	8	**50%**	**4**	**50%**
Many (50 % to 90%)	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
All (90 % or more)	1	4%	0	0%	1	4%	1	13%	0	0%	1	6%	0	0%
Total	**26**		**6**		**23**		**8**		**12**		**16**		**8**	

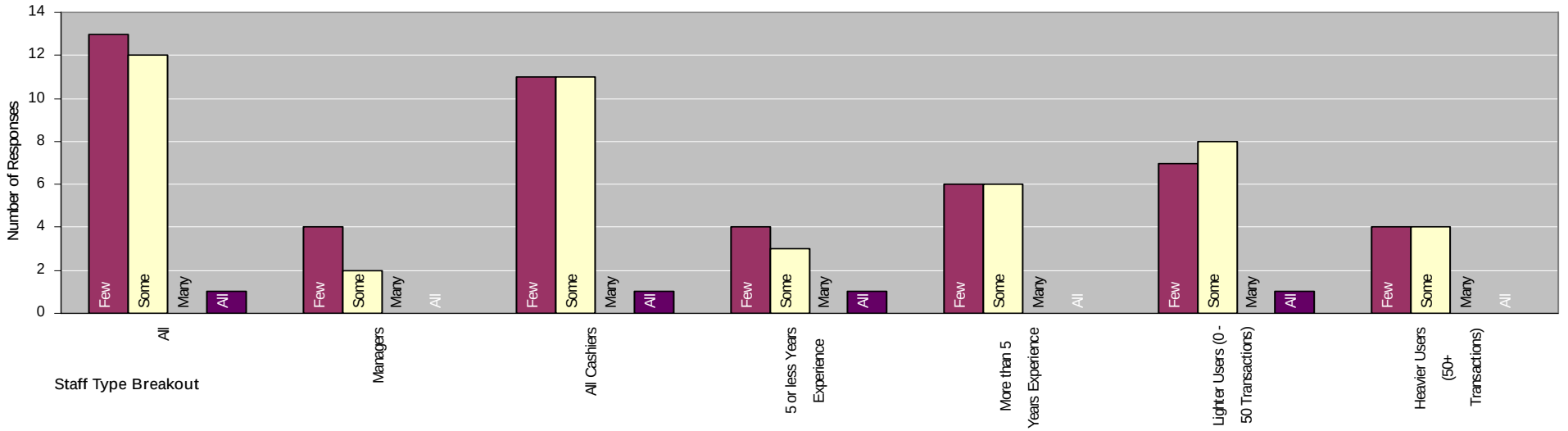


Exhibit 4-19: Retailer Survey Results (Cashiers) – Helping Cardholders

Ineligible Items/Items not in Available Balance: Issues with denied items, such as un-bagging denied items, had been pointed out as a consistent problem. Difficulties in the identification of denied items that needed to be un-bagged was documented as a problem that must be resolved before future implementations. Based on verbal comments and comments in the survey, one would have expected that ineligible items or items not in the available balance items were brought to the lane quite frequently, but the perception reported in the survey showed that most respondents felt that there were "Few" transactions where cardholders brought ineligible items through the lane. It appears that staff with less retail experience and staff who were lighter users of WIC EBT felt ineligible items were brought to the lane more often than those staff with more retail experience and staff who used the WIC EBT terminal most often.

12. How many transactions would you estimate that WIC EBT cardholders brought ineligible food items through the lane?

Rating	All Respondents		Management		All Cashiers		*5- Years Experience*		*5+ Years Experience*		*Lighter Users (50- Transactions)*		*Heavier Users (50+ Transactions)*	
Few (10% or less)	**14**	**54%**	**3**	**60%**	**12**	**52%**	3	38%	**8**	**67%**	7	44%	**5**	**63%**
Some (10 % to 50%)	10	38%	1	20%	10	43%	**5**	**63%**	4	33%	**8**	**50%**	3	38%
Many (50 % to 90%)	2	8%	1	20%	1	4%	0	0%	0	0%	1	6%	0	0%
All (90 % or more)	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**26**		**5**		**23**		**8**		**12**		**16**		**8**	

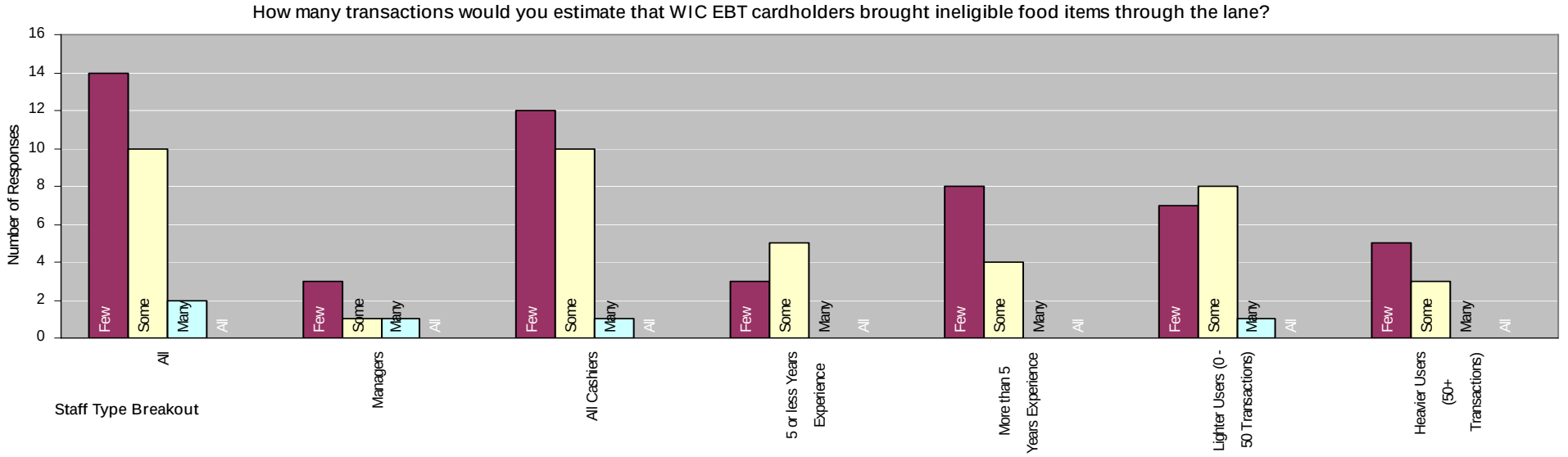


Exhibit 4-20: Retailer Survey Results (Cashiers) – Ineligible Items/Items not in Available Balance (1)

Based on the responses, it appears that cardholders brought items to the register that were not in their balance more often than ineligible items. The heavier users increased their "Some" responses from 30 percent for ineligible items to 50 percent for items not in the balance. Overall, most felt that there were "Few" occurrences of items not in the available balance brought through the lane, but a large group (44 percent) also felt that "Some" transactions had this issue which is a larger number than for ineligible items. This indicates that this occurred more often than would be desired in a future rollout. Many cashiers had indicated that they did not think that cardholders checked their balance often, which resulted in them trying to purchase items for which they did not have benefits. This does correlate with the client survey responses that indicated 16 percent Never checked their balance, 43 percent Occasionally checked their balance, and 41 percent Always checked their balance.

13. How many transactions would you estimate that WIC EBT cardholders brought WIC eligible food items through the lane that were not part of their remaining card balance?

Rating	All Respondents		Management		All Cashiers		*5- Years Experience*		*5+ Years Experience*		*Lighter Users (50- Transactions)*		*Heavier Users (50+ Transactions)*	
Few (10% or less)	**13**	**52%**	**2**	**50%**	**12**	**52%**	**4**	**50%**	**7**	**58%**	**8**	**50%**	**4**	**50%**
Some (10 % to 50%)	11	44%	1	25%	10	43%	**4**	**50%**	5	42%	7	44%	**4**	**50%**
Many (50 % to 90%)	1	4%	1	25%	1	4%	0	0%	0	0%	1	6%	0	0%
All (90 % or more)	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**25**		**4**		**23**		**8**		**12**		**16**		**8**	

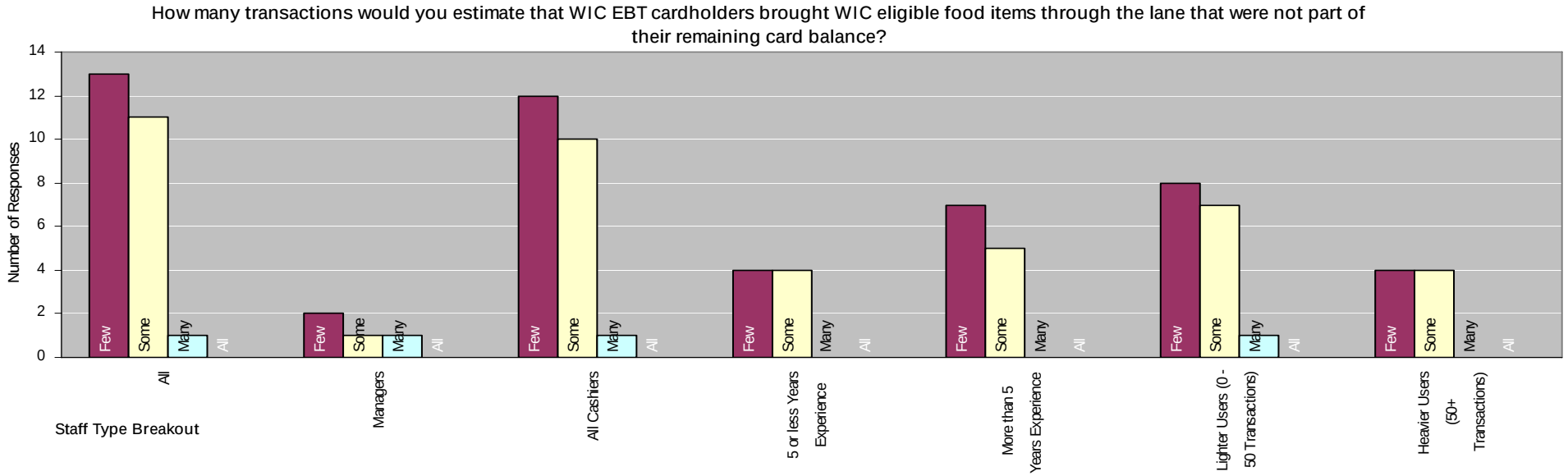


Exhibit 4-21: Retailer Survey Results (Cashiers) – Ineligible Items/Items not in Available Balance (2)

Manager Assistance: Responses to this question were split evenly between "Few" transactions requiring assistance and "Some" transaction requiring assistance. The number of respondents selecting "Some" was higher than expected since this was not indicated in discussions or other feedback as a particular issue. Additionally, 67 percent of the heavier users selected "Some" meaning that even those with the most experience required assistance on a regular basis. The fact that managers were required to help with so many transactions is problematic because it takes them away from their regular duties and increases lane time. Further discussions should be held with the managers and retail staff to determine exactly what the nature of these issues that required manager assistance. Were they related to operation of the terminal, disputes over items, or disputes over card balances?

14. How many transactions would you estimate that you required assistance from a manager or other cashier to complete a WIC EBT purchase?																
Rating	**All Respondents**		**Management**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
Few (10% or less)	**12**	**48%**	1	25%	**11**	**48%**	3	38%	**8**	**67%**	**12**	**48%**	1	33%
Some (10 % to 50%)	**12**	**48%**	**3**	**75%**	**11**	**48%**	**5**	**63%**	4	33%	**12**	**48%**	**2**	**67%**
Many (50 % to 90%)	1	4%	0	0%	1	4%	0	0%	0	0%	1	4%	0	0%
All (90 % or more)	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**25**		**4**		**23**		**8**		**12**		**25**		**3**	

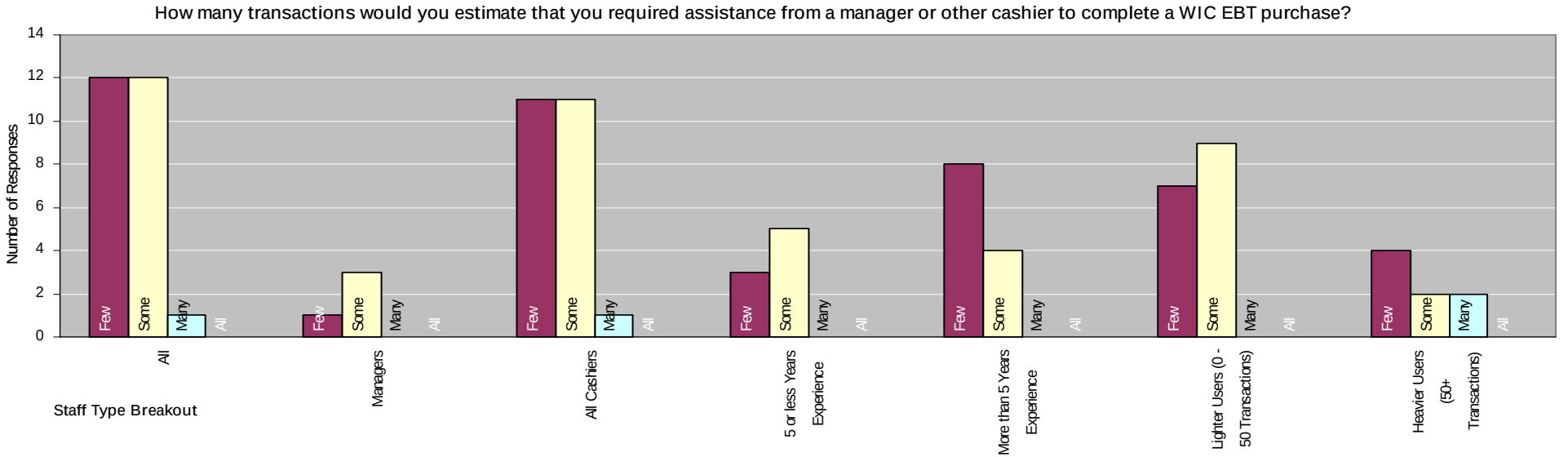


Exhibit 4-22: Retailer Survey Results (Cashiers) – Manager Assistance

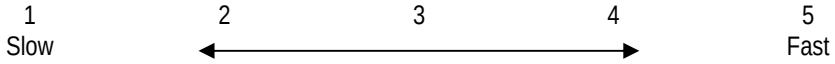
Speed

A question posed as part of the demonstration was whether the speed of the online, dial-up transaction was acceptable. One of the limitations of the demonstration was that all three stores that participated in the demonstration were accustomed to integrated, high-speed transactions for other tender types and had built their lane-flow processes based on those speeds. The demonstration called for stand-beside, dial-up terminals which were quite a change from the retailers' other transactions. One of the more frequent comments from cashiers was that the double scanning and keying of prices into the WIC EBT terminal slowed down the lane flow. It should be noted that this is not necessarily an "online" issue, but an issue with stand-beside systems only.

The retailers all understood that dial-up transactions would be slower than what they were used to with other electronic tender types (debit, credit, Food Stamp EBT) so their initial perception from the beginning of the demonstration was that it would be slow. To measure their overall perception of speed of the equipment and transaction processing, they were asked the following questions:

15. How would you rate the speed of processing a WIC EBT purchase transaction (equipment and telecommunications)?
16. How would you rate speed of processing a WIC EBT purchase transaction (keying prices, scanning items) compared to WIC checks?

Responses were provided on a rating scale of 1 to 5.



The responses to these statements have been provided on the following pages. Responses were grouped by staff responsibilities (Management and Cashier/Clerks). Cashier/Clerk responses were further grouped by retail experience and experience using the WIC EBT equipment. Additional groupings for these questions considered respondents from stores with high-speed terminals versus those with only dial-up experience.

Equipment/Telecommunications Speed: The majority of cashiers felt that the equipment and telecommunications were slow, but about half had a slightly better perception of the speed, rating it a 2 or 3. The heavier users of the equipment tended to have a slightly more favorable opinion of the speed than other users.

15. How would you rate the speed of processing a WIC EBT purchase transaction (equipment and telecommunications)?

Rating	All Respondents		Management		All Cashiers		5- Years Experience		5+ Years Experience		Lighter Users (50- Transactions)		Heavier Users (50+ Transactions)		High Speed		Dial-Up	
1	**11**	**55%**	**2**	**40%**	**9**	**53%**	**6**	**86%**	**3**	**43%**	**7**	**70%**	2	25%	**5**	**56%**	**6**	**55%**
2	5	25%	1	20%	5	29%	1	14%	2	29%	3	30%	**3**	**38%**	3	33%	2	18%
3	4	20%	**2**	**40%**	3	18%	0	0%	2	29%	0	0%	**3**	**38%**	1	11%	3	27%
4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**20**		**5**		**17**		**7**		**7**		**10**		**8**		**9**		**11**	

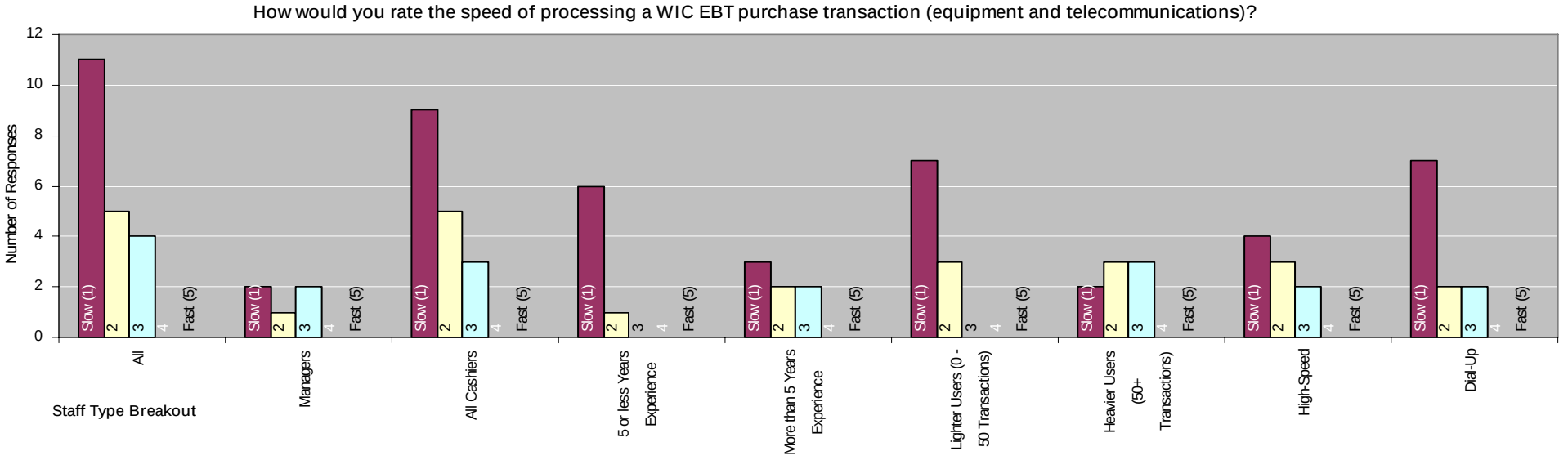


Exhibit 4-23: Retailer Survey Results (Cashiers) – Equipment/Telecommunications Speed

Scanning and Keying Prices: Double scanning and keying of prices was one of the areas where the most comments were received. As noted, this is an issue associated with a stand-beside system and not necessarily an online system issue. Cashiers disliked this process and many suggested in comments that it should be part of their cash register (essentially an integrated system). The key entry of prices was clearly an issue for cashiers

because they would often make keying errors and the current design of the terminal did not easily support the correction of these errors. The results of the survey clearly show that cashiers felt that this process was slow. Interestingly, management respondents tended to have a more favorable opinion of this process. As in the previous question, there appears to be little difference between those with high speed and dial-up terminals, but the same equipment was used for both connection types and therefore the process for scanning and keying of prices were exactly the same regardless of connection type.

16. How would you rate speed of processing a WIC EBT purchase transaction (keying prices, scanning items) compared to WIC checks?

Rating	All Respondents		Management		All Cashiers		5- Years Experience		5+ Years Experience		Lighter Users (50- Transactions)		Heavier Users (50+ Transactions)		High Speed		Dial-Up	
1	13	65%	1	20%	**11**	**65%**	**5**	**71%**	**5**	**71%**	**6**	**60%**	**6**	**75%**	**7**	**78%**	**6**	**55%**
2	3	15%	1	20%	3	18%	1	14%	1	14%	3	30%	0	0%	1	11%	2	18%
3	4	20%	**3**	**60%**	3	18%	1	14%	1	14%	1	10%	2	25%	1	11%	3	27%
4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**20**		**5**		**17**		**7**		**7**		**10**		**8**		**9**		**11**	

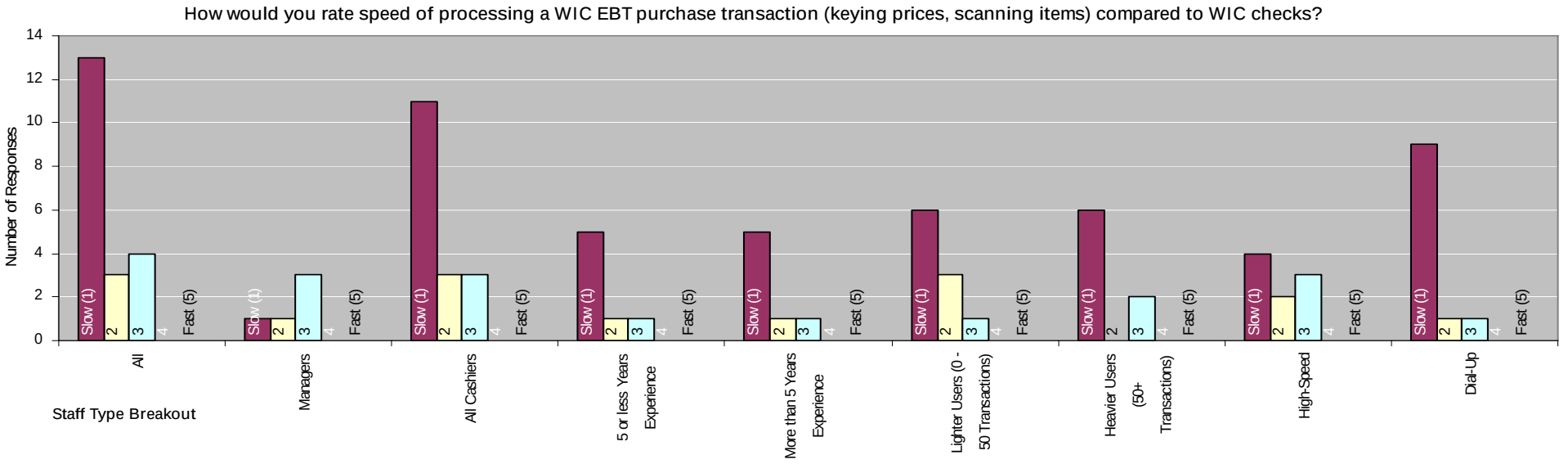


Exhibit 4-24: Retailer Survey Results (Cashiers) – Scanning and Keying Prices

One of the issues in analyzing responses to the questions about transaction speeds is the consideration of to what the retail staff are comparing WIC EBT speeds. Was it slow compared to other electronic tender types such as credit, debit or Food Stamp/cash EBT? Or was it slow compared to their experience with checks? Obviously, due to the duplicative nature of a stand-beside and the speed of dial verses the high-speed connections of credit, debit or Food Stamp/cash EBT, demonstration WIC EBT system will always be perceived as being slower. Based on comments and discussion it was clear that there were preconceived notions that ideally WIC EBT should be integrated into the store's cash register system. The mindset of a respondent answering these questions from a point of view of "when compared to an ideal system" are very likely different answers than "when compared to the current check process" particularly for a minimal, baseline technology.

In the case of comparison of the WIC EBT demonstration system to checks, cashiers generally expressed that they could process a check transaction faster than a WIC EBT transactions. Transactions timings were performed for both WIC EBT and WIC check transactions as part of this report. When dial-up transactions were compared to check times[9], the times were comparable to each other as depicted in the exhibit *EBT vs. Check Transaction Times* below.

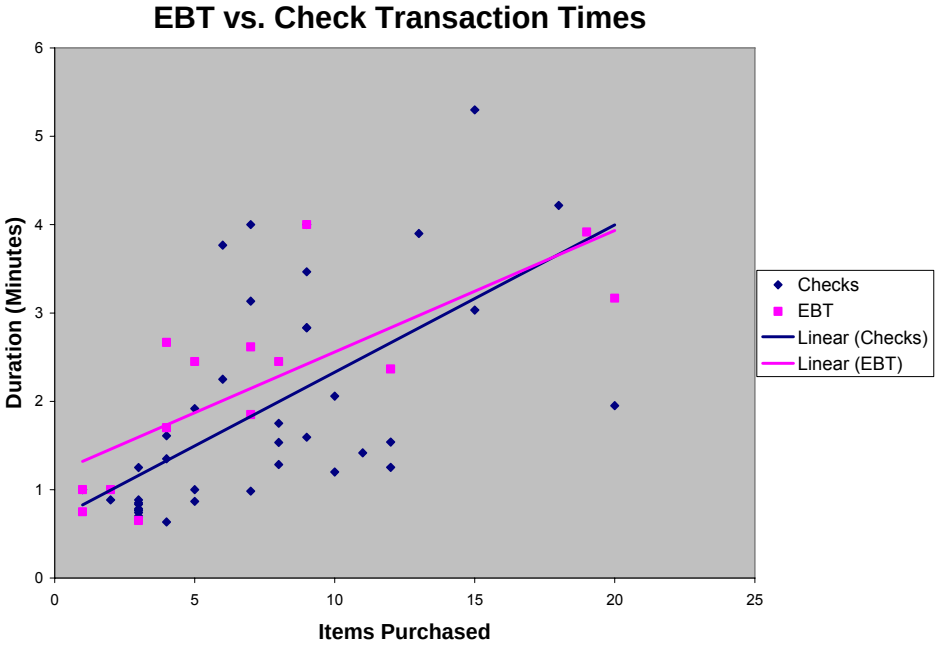


Exhibit 4-25: EBT vs. Check Transaction Times

[9] To account for outliers in the data, the top and bottom 10 percent of the timings were not included in the comparison. Paper transactions ranged between 10 seconds for one item and approximately 7 minutes for three items. Dial-up transactions ranged from 25 seconds for one item and thirteen and a half minutes for eighteen items. More information on transaction timing has been provided in Appendix A: Project Statistics.

Although this was a small sample, even with the inclusion of transaction times that were outliers, EBT transactions times fell within the same range as checks. It should also be noted that larger purchases using WIC checks typically require more than one check and in some cases multiple transactions when EBT purchases should only require one transaction.

Another reason for the perception that the equipment and telecommunications were slow were the occurrence of communication errors and the probability that the terminal was not getting the line on the first try, which required a redial and made the connection time longer than necessary. According to communication error logs kept during a 101 day period, communication errors occurred on average 3.5 times a week for purchase transactions. The log also indicates that communication errors occurred in only 2 percent of the purchase transactions that were performed during the reporting period. Although communication errors do not appear to have occurred frequently, the logs were kept manually by each store and therefore it is possible that not all incidents were logged. Additionally, when communication errors occurred they often required that the cashier power the terminal down in order to reset. The items would have to then be rescanned and prices entered into the terminal. Cashiers indicated that instead of using the same terminal they would take the WIC client to another lane to complete the transaction, which meant the entire transaction needed to be re-rung on their cash register as well.

There is no data available to analyze the issue with the terminals having difficulty getting a phone line connection on the first dial attempt. This was something observed by the project team and correlates to retail staff statements that the terminal took a long time to connect to the host. The addition of a pause before dialing may have alleviated this problem, but further testing should be performed to determine the root cause of the slow connection time and any connection it has to the communication errors.

From in-store observations, once the connection was made to the host, the processing time occurred fairly quickly, but when combined with an extended time to connect to the host, it would cause the a user to have the perception that the transaction was slow. Changes to the terminal during the demonstration improved the communication error issue, but it was done late in the project and likely was not in place long enough to change the users' perceptions.

Restarts due to keying errors and other issues are another reason for the perception that the transactions were slow. In the transactions observed for timing data collection, 9 out of the 32 transactions were reported to have some issue that caused the transaction to take longer than normal. 4 these transaction required a restart, which is 12.5 percent of the

transactions observed.[10] Having to restart one out of every 10 or more transactions would likely cause a cashier to have a negative opinion of the terminal and its speed in completing a WIC EBT transaction. It should be noted that many of the reasons that restarts are required can be resolved through enhancements to the software to make transaction navigation more user-friendly and are not necessarily related to use of online technology.

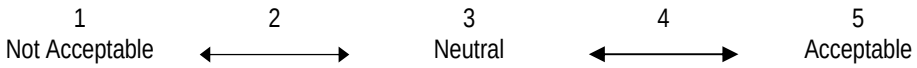
Surprisingly, there was not a significant difference in the opinions of respondents from stores with high-speed terminals and those with only dial-up. The high-speed terminals were clearly faster and had fewer issues with communication errors. A possibility is that users in the high-speed stores had started the demonstration with dial-up and their opinions may have carried over through the remainder of the demonstration. Another possibility is that while the high-speed terminals were faster connecting to and communicating with the host, it did not resolve issues with the ability to recover from errors with out restarting.

Ease of Use

Another comment shared by the retailers during the demonstration was that some cashiers had keying errors because they found the terminal's buttons difficult to press. To determine the extent of this issue as well as their overall opinion of the equipment, cashiers were asked the following questions:

17. How would you rate the ease of use of the WIC EBT terminal for your job tasks?
18. How would you rate the ease of use/satisfaction regarding the keypad, display and receipts?

Responses were provided on a rating scale of 1 to 5.



[10] In an attempted to gain a more complete picture of the occurrence of restarts, the project team asked if the retailers would log restarts in addition to communication errors, however data was not collected because of the burden it would put on the cashiers in-lane to maintain the log.

Terminal Ease of Use: Most respondents indicated "Neutral" to "Not Acceptable" ratings for the ease of use of the terminal with the majority rating being a 2 (somewhat unacceptable). Issues with the terminal are likely a combination of the equipment, software design, and the result of putting a stand-beside system in an integrated environment. Cashiers commented verbally and in the surveys that the buttons were difficult to press. Additionally, POS software made it difficult to recover from error situations. It was noted that when there were no issues with a transaction (all items and prices entered correctly and there were no denied items) the terminal worked well. But, if there was an exception, often the only way to recover was to restart the transaction. Equipment selection and software design are both issues that can be corrected in a future rollout.

17. How would you rate the ease of use of the WIC EBT terminal for your job tasks?																	
Rating	**All Respondents**		**Management**		**All Cashiers**		***5- Years Experience***		***5+ Years Experience***		***Lighter Users (50- Transactions)***		***Heavier Users (50+ Transactions)***	
1	5	19%	0	0%	4	17%	**3**	**38%**	1	8%	3	20%	1	13%
2	**11**	**42%**	2	40%	**10**	**43%**	2	25%	**6**	**50%**	**8**	**53%**	**3**	**38%**
3	5	19%	1	20%	5	22%	2	25%	3	25%	2	13%	**3**	**38%**
4	4	15%	2	40%	3	13%	1	13%	1	8%	2	13%	1	13%
5	1	4%	0	0%	1	4%	0	0%	1	8%	1	7%	0	0%
Total	**26**		**5**		**23**		**8**		**12**		**16**		**8**	

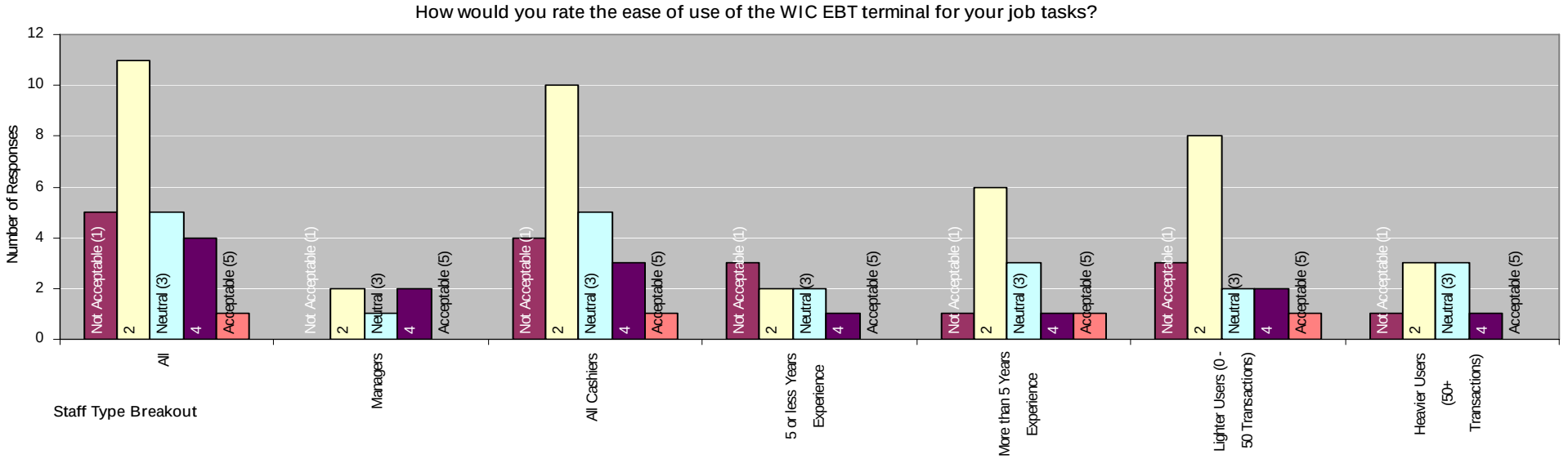


Exhibit 4-26: Retailer Survey Results (Cashiers) – Terminal Ease of Use

Keypad, Display, and Receipts: As expected based on retailer feedback, most respondents felt the ease of use/satisfaction of the keypad, display, and receipts was somewhat unacceptable (2) to neutral (3). Cashiers indicated in verbal and written comments that the buttons on the terminal were "squishy" and hard to press causing keying errors. A typical problem that occurred in keying prices was when a number was skipped, for example, the price was $2.99, but only $.29 would be entered because the cashier did not press a button hard enough. Since the terminal software did not support easy recovery from these types of errors, often the result was restarting the transaction. Future implementations might consider alternate equipment, if possible, and software changes to support easy identification and fixes to keying errors.

18. How would you rate the ease of use/satisfaction regarding the keypad, display and receipts																
Rating	All Respondents		Management		All Cashiers		5- Years Experience		5+ Years Experience		Lighter Users (50- Transactions)		Heavier Users (50+ Transactions)	
1	4	15%	0	0%	4	17%	2	25%	2	17%	4	25%	0	0%
2	**11**	**42%**	**2**	**40%**	**9**	**39%**	1	13%	**6**	**50%**	**6**	**38%**	**4**	**50%**
3	9	35%	**2**	**40%**	**9**	**39%**	**5**	**63%**	3	25%	5	31%	**4**	**50%**
4	2	8%	1	20%	1	4%	0	0%	1	8%	1	6%	0	0%
5	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**26**		**5**		**23**		**8**		**12**		**16**		**8**	

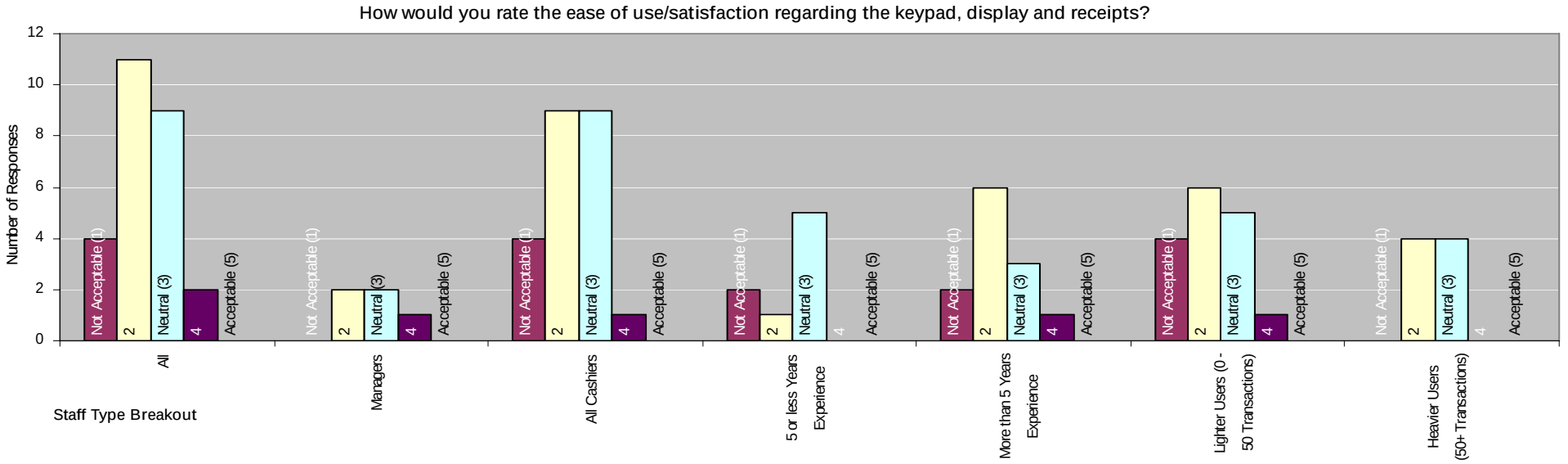


Exhibit 4-27: Retailer Survey Results (Cashiers) – Keypad, Display, and Receipts

Cashier Opinion Questions

Cashiers were asked a series of open-ended questions to gather addition information and clarification to their survey responses. Responses have been provided below. If the comments of a similar nature were provided more than once, they have been consolidated and noted only once in the list.

19. What were the most difficult challenges for you processing WIC EBT purchases? *(72 percent of the respondents provided an answer to this question.)*

    - Time, checker error when keying in price.
    - Time, feeling I was making others wait.
    - Processing time: dial up was slow.
    - Communication errors.
    - Double scanning.
    - Have to be careful to match the price.
    - Correcting the price if you entered it wrong.
    - Not being able to scroll through order to remove mistakes without starting over.
    - Trying to read the receipt when you messed up on an item trying to find out what one to take off.
    - Not being able to see what I had already scanned, or prices I'd entered.
    - Trying to delete items that needed to be taken out.
    - Having to cancel and start over because of one mistake.
    - Having to redo an order, telling a customer sorry WIC item not accepted.
    - Key pad not user friendly. Duration time of sending.
    - Customers using their Safeway cards (Buy-One-Get-One Free BOGO). Taking items out of the order having to start over.
    - Hoping customer bought what was left on the card w/o any problems to fix.
    - Customers are going over amount they can get.
    - Too many procedures to the system.
    - The scan gun is inconveniently placed.

The majority of these issues are related to the current design of the POS software. Many of these issues can be eliminated through enhancements to the software. Additionally, issues related to double scanning and key

entry would be alleviated though integration or at a minimum different POS equipment with a different key pad.

20. What improvements could be made to the equipment or process to make WIC EBT better? *(69 percent of the respondents provided an answer to this question.)*
    - Price would come up with scan.
    - Faster.
    - High-speed connection.
    - Integrated system.
    - Not having to scan each item twice plus entering the amount.
    - Better responsive keypad quicker send and process time.
    - Fixing the communication error and faster processing.
    - Not to interfere with receipt function. When an item is scanned (not allowed) items would say so when it rang up.
    - Being able to see what item is denied before having to go through whole transaction and starting over again.
    - To have prices in the system. To have the capability to go back into the order scroll up or down to know what you rang up.
    - To be able to make changes before you finish.
    - Need WIC EBT machine to show all items scanned and show price entered as it occurs just like our screens show us; need more explanation in training manual (detailed).
    - Some type of screen to let you (the cashier) know what has been rung-up.
    - Simpler and faster communicating system.

A common theme was the elimination of double scanning and keying of price. Many thought an integrated system would solve these issues. Several wanted the terminal to be improved to support easier recovery from keying errors and other mistakes.

21. Please provide any additional comments you have about your WIC EBT experience: *(52 percent of the respondents provided an answer to this question.)*
    - Overall like it, but will love it when it's a part of our normal payment system.
    - Overall I found the WIC EBT system to be much better, because it eliminated any mistakes when filling out checks.

- I wish we had more time to work everything out. I love the card.
- WIC EBT inferior to WIC checks.
- I think that it is a great idea if it worked more smoothly. I would not mind using it again (trial period) when they get another set-up.
- Needs to be integrated & not separate procedures; scan once.
- Positive, looking forward to a check-less system & customers enjoyed being able to buy certain items when needed instead of the whole check list.
- Took too much time.
- Good - I think it is a really good idea, but it needs to be a little faster.
- The keypad needs to be redesigned, not clear on the function keys.
- Jeane Fink was quick to respond to any problems or questions. (Thank you)
- When customer had 0 balance, screen should tell us 'Zero Balance' rather than it have me remove every item individually (time consuming).
- Potentially a great idea if time problems can be reduced.
- Having screen show us total # of items scanned & total balance before approving or processing is an excellent feature. Keep that in!
- Because we didn't have a WIC EBT tender key we had to set up delayed receipts in order to print 2 receipts (one for customer and one for the bookkeeper). This delay feature affected our non-WIC EBT orders.
- I'd prefer to use WIC check, just seems easier.
- Once it is connected to our regular scanner it will be much quicker and easier with pricing (not double scanning).
- Slow-always have communication errors.
- Large purchases-too time consuming
- Being able to get everything at once left everyone frustrated-Cashier WIC EBT customers and other customers having to wait in line. If an item is denied you have to go back and redo everything-you have to wait for completion of transaction before finding out what item was denied.

The majority of the respondents had positive comments about WIC EBT. Only a handful said they preferred paper checks to WIC EBT.

Management Questions

A set of questions was asked of those describing themselves as management. These questions were geared at gaining their opinion about the demonstration and its effect on their management duties.

Knowledge of WIC Foods

The first question was asked to determine the importance of cashiers' knowledge of WIC foods. The following scale was used:

1 Not important ← 2 → 3 Neutral ← 4 → 5 Very Important

Managers thought that knowing the WIC food was very important. It is likely that they felt this was important because cashier would be able to identify non-WIC items and to replace a non-WIC brand with a WIC-accepted brand of food and not scan them into the WIC EBT terminal.

How would you rate the importance of cashiers' knowledge of WIC foods to efficiently handle a WIC EBT purchase?		
Rating	**Management**	
1 Not Important	0	0%
2	0	0%
3 Neutral	0	0%
4	2	40%
5 Very Important	**3**	**60%**
Total	**5**	

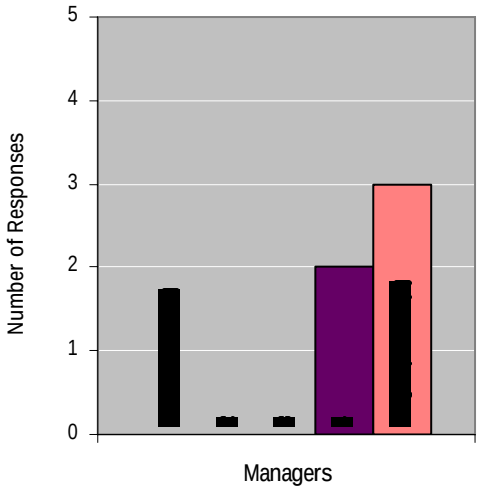


Exhibit 4-28: Retailer Survey Results (Managers) – Importance of the Knowledge of WIC Foods

Balance Inquiry Terminals

Managers were asked to rate the importance of the balance inquiry terminal in the success of an EBT program. The following scale was used:

1 Not important ← 2 → 3 Neutral ← 4 → 5 Very Important

The majority also found this to be very important.

How would you rate the importance of the WIC EBT balance inquiry terminal to a successful EBT program?		
Rating	**Management**	
1 Not Important	0	0%
2	0	0%
3 Neutral	1	20%
4	0	0%
5 Very Important	**4**	**80%**
Total	**5**	

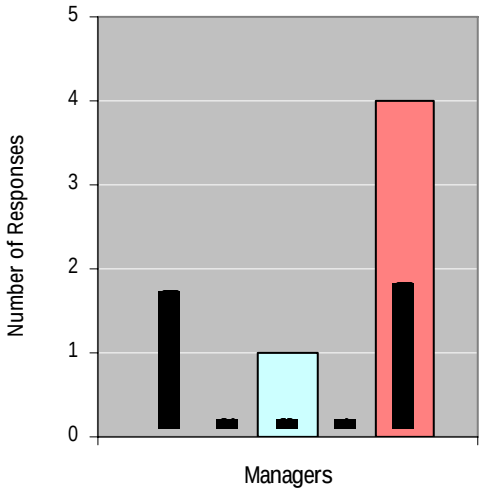
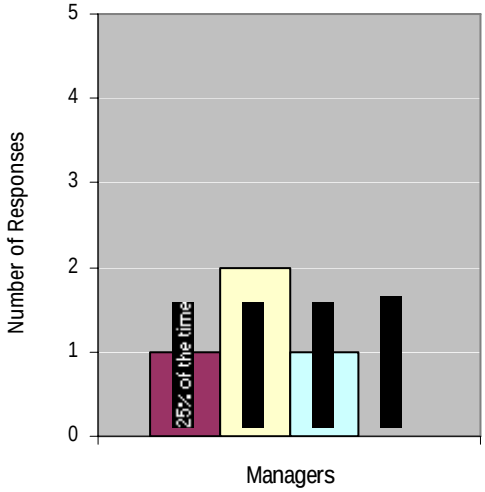


Exhibit 4-29: Retailer Survey Results (Managers) – Importance of Balance Inquiry Terminals

Although they felt the balance inquiry terminals were important, another important question is whether they were actually used by the cardholders. Managers were also asked about how often they thought WIC EBT cardholders used the balance inquiry terminal. The majority felt it was used 50 percent or less of the time, which was confirmed in the client survey as well as the daily transaction statistics.

How frequently was WIC EBT balance inquiry terminal used by clients before they shopped?		
Rating	**Management**	
25% of the time	1	25%
50% of the time	**2**	**50%**
75% of the time	1	25%
100% of the time	0	0%
Total	**4**	

Exhibit 4-30: Retailer Survey Results (Managers) – Frequency of Balance Inquiry Terminals Use



Cardholders not knowing their balance were noted often as an issue because they would bring items to the register that they did not have in their balance. This would delay the transaction since the terminal did not identify denied items until all items had been scanned and in most cases placed in a bag. Denied items had to be found and then un-bagged which could be difficult because the description of the item on the WIC EBT

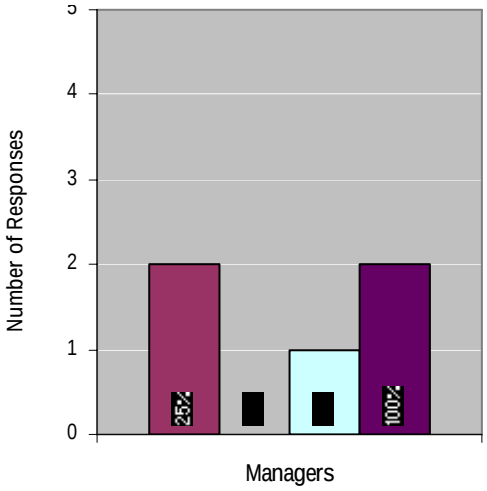
terminal was limited to the subcategory description, such as Milk or Cheese, and did not contain the package size (also possibly a problem when several items of one product are purchased). Typically the cashier would choose to restart the entire transaction.

Training

Comments had been made during the demonstration that not all cashiers had been formally trained. According to the survey, two managers from the same store indicated that all were trained. The other stores limited the amount of training.

What percentage of the cashiers were formally trained for WIC EBT?		
Rating	**Management**	
25%	**2**	**40%**
50%	0	0%
75%	1	20%
100%	**2**	**40%**
Total	**5**	

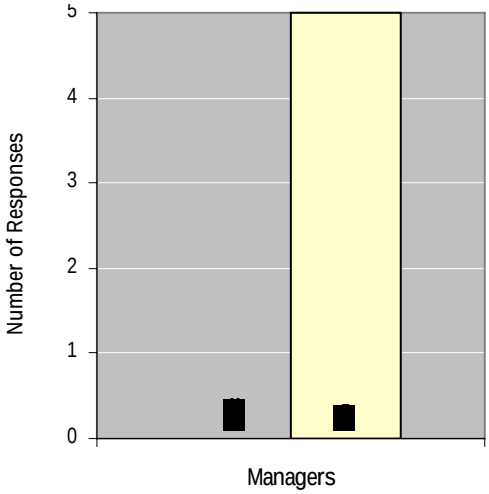
Exhibit 4-31: Retailer Survey Results (Managers) – Training (1)



Although it was the retailers that had requested a way to train staff in a "training mode," the terminals provided for this purpose were not used by any of the stores.

Did you use the WIC EBT training terminal to train new cashiers?		
Response	**Management**	
Yes	0	0%
No	**5**	**100%**
Total	**5**	

Exhibit 4-32: Retailer Survey Results (Managers) – Frequency of Balance Inquiry Terminals Use

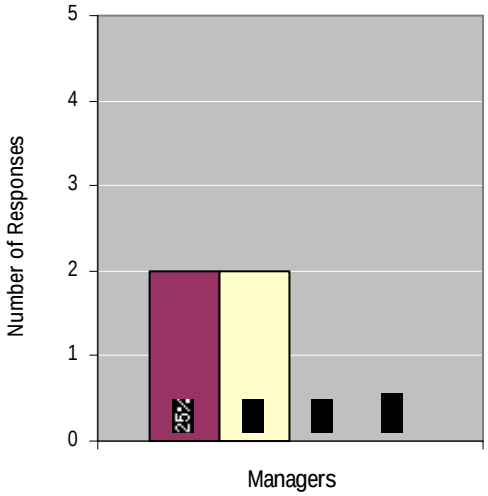


Terminal Usage and Experience

According to the managers' responses, only 50% or fewer of their staff used the WIC EBT terminals. In most of the stores, the same staff would be assigned to the lanes with the WIC EBT terminal and were clearly more familiar and comfortable with the equipment.

What percentage of the cashiers regularly used the WIC EBT terminal?		
Rating	**Management**	
25%	**2**	**50%**
50%	**2**	**50%**
75%	0	0%
100%	0	0%
Total	**4**	

Exhibit 4-33: Retailer Survey Results (Managers) – Terminal Usage and Experience



Management Opinion Questions

Two additional open-ended questions were asked of the retailers to gather further feedback on the demonstration. The responses are provided below.

Did you restrict any cashiers from processing EBT purchases or limit training to specific shifts? If so, please explain.

- Not totally, but some were better than others
- No
- New cashiers -- because experienced cashiers were frustrated and had to really concentrate on what they were doing so as not to make a mistake scanning and entering prices.

While apparent restrictions were not made by the managers, it was stated by some of the management during the demonstration, that the more experienced cashiers were assigned to the lanes with the EBT equipment. It should be noted that based on transaction history data, few transactions were seen in each store on a daily basis. The store averages are as follows:

- Retailer 1 – 4.1 transactions per day
- Retailer 2 – 2.4 transactions per day
- Retailer 3 – 10.6 transaction per day

Is this WIC EBT solution preferable to checks? If offered a WIC EBT solution that takes approximately the same amount of time to process as checks, but requires price entry and double scanning, would this solution be preferred compared to disadvantages of checks such as multiple WIC checks for one purchase, stale checks, signature checking, food list matching, price overages, etc.? Please comment:

- I would prefer EBT as long as the [transaction] time stays the same.

- Yes, as long as it takes the same amount of time.
- I believe so. In the long run retailers will save money by eliminating checks and the issues related with them. The extra time required is an issue, but that will get better as the program works out bugs.
- No-the double scanning is unacceptable. Needs to be integrated.
- I do not prefer WIC EBT to checks currently. Checks are faster, simpler, and we are more knowledgeable of what is allowed for purchase. If the system for WIC EBT wasn't so long & the bookkeeping part of it wasn't so inaccurate, it may have worked for us.
- Well checks move faster even with more than one check. But if the WIC card was like EBT Food Stamp card would be better and I would choose that one.

The majority opinion is that if the lane flow and speed can be improved, WIC EBT stand-beside technology could be preferable to checks. The statement was made that "we are more knowledgeable of what is allowed for purchase" was found to be somewhat odd considering that the EBT system will only allow approved foods to be purchased. There were a few issues initially with items that had not been added to the approved UPC table, but these were resolved quickly within the first weeks of the demonstration.

Bookkeeper Questions

An additional set of questions was asked of all of those respondents that identified themselves as bookkeepers. These questions were asked to gain feedback on reports, the end-of-day process, and daily account reconciliation. There were few bookkeepers involved in the demonstration. Only three bookkeepers responded to the questionnaire.

Experience Performing WIC EBT Reconciliation

This first question was asked to determine their experience using the terminal for bookkeeping activities. Most stores had one main person who handled the daily reconciliation activities and additional staff that would perform these activities on the days that the main bookkeeper was not working. Those completing this survey were the main bookkeepers for each store therefore the result of this questions show that they frequently performed daily reconciliation activities.

In an average week, how often did you perform WIC EBT-related reconciliation activities?		
Rating	**Management**	
Never	0	0%
Once	0	0%
2 to 6 times	2	67%
Every day (7 times)	1	33%
Total	**3**	

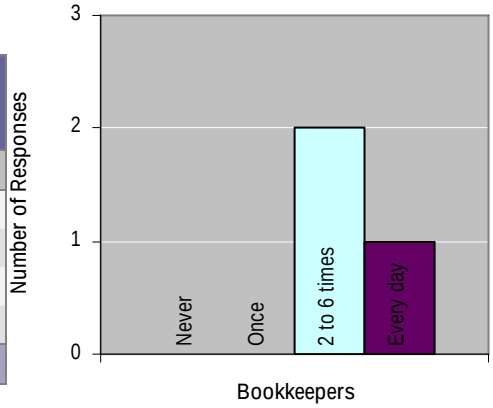


Exhibit 4-34: Retailer Survey Results (Bookkeepers) – Experience Performing WIC EBT Reconciliation

Difficulties Encountered

One bookkeeper indicated that they never had difficulty with reconciliation activities. The other two respondents indicated that they had problems in less than half of their attempts.

How often did you have difficulty completing WIC EBT-related reconciliation activities? Please specify the difficulties encountered below:		
Rating	**Management**	
Never	1	33%
Less than half of the attempts	**2**	**67%**
More than half of the attempts	0	0%
Always	0	0%
Total	**3**	

Exhibit 4-35: Retailer Survey Results (Bookkeepers) – Difficulties Encountered

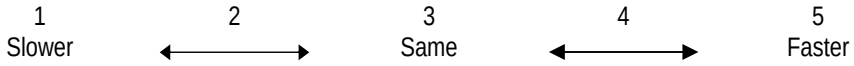
Typical issues that caused difficulties were:

- Keying errors that would cause the completed POS price to not match the cash register price
- Max pricing overages that would cause the completed POS price to not match the cash register price
- End-of-day differences at Safeway that caused transactions for Safeway's business day to not match the host business day transaction.

- Some difficulties were encountered connecting to the host

Speed

Bookkeepers felt that the end-of-day processing speed was faster or the same compared to other transaction types. The following scale was used:



How would you rate the speed of processing WIC EBT end of day transactions (equipment and telecommunications) as compared to processing for other transaction types?		
Rating	**Management**	
1 Slower	0	0%
2	0	0%
3 Same	1	33%
4	**2**	**67%**
5 Faster	0	0%
Total	**3**	

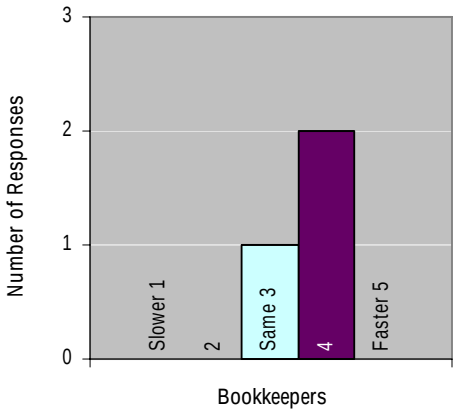


Exhibit 4-36: Retailer Survey Results (Bookkeepers) – Speed (1)

Only two of the bookkeepers responded to the question about the time needed to review reports and ensure accuracy of the reconciliation data. One responded that it was the same as other transactions and the other indicated that it was slightly slower.

EBT end of day transactions (reviewing reports and ensuring accuracy of reconciliation)?		
Rating	**Management**	
1 Slower	0	0%
2	**1**	**50%**
3 Same	**1**	**50%**
4	0	0%
5 Faster	0	0%
Total	**2**	

Exhibit 4-37: Retailer Survey Results (Bookkeepers) – Speed (2)

Usability

Bookkeepers were asked about usability. The following scale was used:

1 Not Acceptable ← 2 → 3 Neutral ← 4 → 5 Acceptable

For the most part, the bookkeepers reported that they were neutral about the usability of WIC EBT terminal reports or that they found them to be acceptable. This is somewhat surprising considering that there were some problems with the Auto-Reconciliation Report. However, the Retail Manager indicated that she believed that at least one of the stores used the daily Detail by Clerk Report rather than the Auto-Reconciliation Report to perform her daily reconciliation.

How do you feel about the usability of the WIC EBT terminal reports (i.e., Detail report, Auto-Recon report)?		
Rating	**Management**	
1 Not Acceptable	0	0%
2	0	0%
3 Neutral	**1**	**33%**
4	**1**	**33%**
5 Acceptable	**1**	**33%**
Total	**3**	

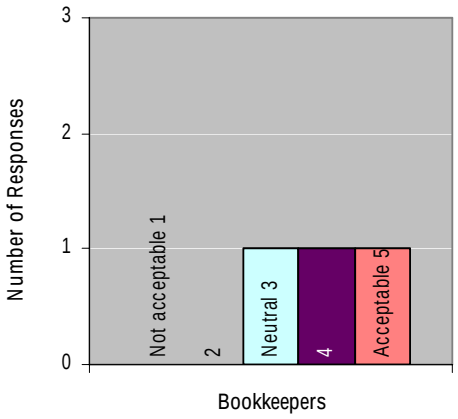


Exhibit 4-38: Retailer Survey Results (Bookkeepers) – Usability

Bookkeeper Opinion Questions

One additional open-ended question was asked of the bookkeepers to gather further feedback on the demonstration. The responses are provided below.

What improvements would make the WIC EBT POS terminal reports or the reconciliation process better, based on your experience using the current system?

- No AM procedures. Morning checker 6:00 AM and any management is here at 8:00 AM. Different people are always working on the terminals and should be ready to go at 6:00 AM.'
- Recon was the biggest issue I saw with WIC EBT because Safeway Accounting and WIC EBT were not closing at the same time. This did cause accounting errors. Addressing that issue should fix most issues.
- Speed-faster connection
- If the information on the Auto-Recon report displayed as desired. To see that work would help.
- If terminal displayed when prices exceed the state's maximum price.
- If the terminal could be closed when wanted that would help with stores that don't close at 12pm

4.4. Retailer Interviews

Interviews were held with staff members from each of the participating stores. One manager, one bookkeeper and two cashiers were interviewed from each site.

The cashier interviews focused on the transaction process. The goal was to identify which parts of the transaction processes were difficult or problematic. The bookkeeper and manager interviews were focused on gathering verbal feedback on their experience related to their specific responsibilities and job duties.

Cashier Interviews

Interviewers walked through the process of the purchase transaction step-by-step in an effort to identify the parts of the transaction that were most problematic or time consuming. Anecdotal information about issues had been provided to the project team during the demonstration, but information was not always consistent and it was unclear if noted issues were problems for all users or just in a particular store.

The transaction process was broken down into thirteen main steps based on the step-by-step description defined in the POS user manual. The

cashiers were asked to provide feedback on each one considering the following:

- Were there any issues or problems related to this step of the transaction?
- If there were problems, ask them to be specific about them:
  - When in the process did the problem occur?
  - Was the problem associated with any particular activity?
  - Was the problem associated with any particular feature of the POS?
  - Was the problem associated with processing speed?
  - Was the problem associated with the usability of the POS terminal?
  - Was the problem associated with cashier training?
  - Was the problem associated with client training?
  - Was the problem associated with a stand-beside system which might not be encountered in an integrated system?
- What improvements could be made to make this step of the process better?

Time permitting, four additional questions could be asked of the cashiers to gather additional feedback on their experience.

The following is an overview of the feedback received by the interviews for each of the transaction steps and the optional feedback questions. A table containing all of the interview responses has been provided following the overview.

Step 1 Select Transaction Type

This step was not particularly problematic. Most said it was self-explanatory. The terminal clearly lists four options, of which balance inquiry and purchase are available to the cashier. Selecting the transaction type of purchase was an easy process.

Step 2 Enter Cashier Password

The cashiers stated that this step was easy. In one store all cashiers used the same password so there were very few issues related to people forgetting their password. Another store used the same password as their cash register system. For the most part, cashiers indicated that password entry was a straight-forward process. It was noted that managers sometimes had problems with their passwords, which was a known issue with the terminal.

Step 3 Enter/Swipe Card

Cashiers did not note that there were any particular issues with this process, but did state that they often swiped the card for the client. Sometimes cardholders had trouble swiping the card and in other cases the terminal was not in a location that was convenient for the cardholder to swipe the cards themselves. This response is somewhat in conflict with survey responses that showed that many staff had to swipe some cards (50 percent or less). In addition, retailer survey respondents indicated that people knew how to swipe their card.

Step 4 Enter PIN

Cashiers indicated that most customers remembered their PINs and had no problems entering the number into the terminal. If there were mistakes it was easy for them to clear out the incorrect number and enter their PIN again. One cashier noted that the cord on the terminal was not quite long enough and the location of the terminal was awkward for the client to enter their PIN.

Step 5 Scan UPC

This step was noted by the cashiers to be problematic. Most thought the scanner worked fine, but UPCs on some items, such as eggs, do not scan easily. These UPCs also do not scan well through the ECR scanner, but most of the stores had a short cut UPC that could be entered by hand into the ECR. If a UPC did not scan through the WIC EBT scanner, the entire 12 digit UPC would have to be key entered into the terminal. Having to scan the item first through the cash register and then through the WIC EBT terminal was noted to be time consuming, although one cashier stated that the double scanning was not so much the issue as was the keying of prices. They also would have liked the ability to see items that had already been scanned, which was a feature not included in the approved design of the WIC EBT terminal software.

Step 6 Enter Price

This clearly was a step with which cashiers had difficulty. Keying errors were a known issue reported during the demonstration. Cashiers felt that keying the prices really slowed down the transaction. Some had trouble with the buttons on the terminal stating that they would stick, needed to be pressed hard in order for the number to register, or they had trouble pressing them because of their long fingernails. One cashier noted that the location of the terminal made key entry more difficult for her. Another issue that was pointed out was that if you made a mistake you could not go back and view items that had been entered into the terminal. If they realized they had made an error, they would generally cancel the entire transaction and start over from the beginning, which was also time consuming.

Step 7 Scan Next UPC

Responses to this step were the same as step 5.

Step 8 Multi-Item Entry

If a cardholder was purchasing multiples of the same item, the POS supported the ability to enter a quantity of those items rather than each one being scanned individually. It did however require that all of the items be purchased at the same price. Cashiers indicated that they did not use this function or if used, they only used it for a short time at the beginning of the demonstration. Some of the reasons stated for the function not being used included:

- They could not remember how to use the function or could not remember which button to press to initiate the function.
- One thought that if cardholder did not have enough balance for all of the items entered using the multiple key, all of those items would be denied (note that this however was not the case).
- They found that it was just easier to separate the items.

One additional reason, that was noted during the demonstration but not in the interviews, was when there were sale items, such as buy one get one half off, the prices of the two items would be different and would need to be entered separately anyway. Additionally, the cashiers were not used to using a multiply key with their cash registers. They would typically scan each item individually.

Step 9 Connecting (Dial)…Sending Message…Waiting for Host …

The cashiers felt this process was too slow although cashiers from the two stores that switched to high-speed connections stated that the speed improved. In dial-up mode, one respondent stated they felt this step took 30 – 45 seconds. Much of this time was spent on the Connecting (Dial) phase of this step. There was a known issue during the demonstration with the Connecting (Dial) process and it is believed that often the terminal did not get an open line on its first attempt and therefore required two dial out attempts to reach the host. A fix was introduced during the last month of the demonstration which may have improved this issue, but the result are unclear because of the limited number of transactions being performed at that point did not provide a clear indication of improvement according to the retail community.

Cashiers also indicated that they also experienced communication errors and would have to restart the terminal in order to recover. This was also a known issue, which was improved but not completely resolved by the end of the demonstration.

Not noted in the interviews was the fact that prior to the POS connecting to the host, the cashiers needed to compare the total sales amount

displayed on the POS to the total amount on their cash register. If these numbers did not match, they had likely made a keying error. Because the terminal did not provide a viewable list of items and priced entered, it was difficult to know which item had been entered incorrectly. Most cashiers would restart the transaction at this point rather than try to determine which item or items had been entered incorrectly. To help the cashiers resolve this issue, an enhancement was made to the terminal so that a running subtotal displayed on the terminal screen as items were entered. This helped cashiers compare the WIC EBT terminal subtotal amount to the cash register total throughout the item scanning process rather than wait until the end to see the total. The enhancement was implemented in the last month of the project. With a dwindling number of transactions it is unclear how helpful the cashiers found the enhancement, the Retail Manager indicated the response was positive.

Step 10 Enter Coupon

Cashiers from two of the stores stated that this function was never used. It is not clear if they had a specific policy not to apply coupons to WIC purchases or if their customers typically did not use coupons toward their WIC purchases. Only one of the stores used a store loyalty/savings card and used the coupon function to enter card savings as indicated on their cash register. They felt this process was time consuming and they had to be very careful to match prices to the amounts on their cash register. One cashier from the store using the loyalty card indicated that they asked cardholders to wait until the end of the transaction to swipe their loyalty cards because if they were entered ahead of time, it was harder to determine the correct price to enter from the cash register.

Step 11 Confirm Purchase Amount

Cashiers did not indicate any particular problems with this step. It should be noted, that if the purchase amount were incorrect at this point, unless it was a coupon entry keying error, the transactions would need to be restarted to correct the error. This is because the host had already authorized the items being purchased.

Step 12 Connecting (Dial)…

Following the coupon entry and confirmation of the purchase amount, the POS connects to the host again to send the coupon amount and complete the purchase. In dial-up, the terminal should still be connected to the host at this point, unless a significant amount of time has passed and the terminal has timed out. In most cases, there were no issues with this step. Cashiers stated that this was the quickest part of the transaction. This would indicate that once the connection is established the communication between the terminal and the host occurred rapidly.

Step 13 Transaction Completed

The cashiers did not indicate that there were any particular issues with this step of the process. They would tear of the receipt and provide it to the customer. It does not appear that they closely reviewed any of the information on the receipt.

Additional Cashier Feedback

Cashier feedback about the demonstration was generally mixed. Most tended to dislike having to double scan UPCs and key enter prices. They felt these processes were inefficient and slowed down lane flow, however these are issues associated with a stand-beside terminal and are not specifically online WIC EBT issues. In many cases it is difficult to ascertain whether their comments about slow transactions are associated with inefficiency in lane flow or actual processing times.

14. Any additional comments about the purchase process or suggested improvements

Some cashiers thought it was a great concept while others did not like WIC EBT at all. Cashiers reported that the transactions took a long time. They would prefer the system if it was integrated into their cash register system to eliminate double scanning and price entry and if the transactions took less time.

Several cashiers thought WIC EBT was great for the WIC participants. They thought most participants appeared to be well trained on how to use the card, but several had difficulty figuring out which lane to use for WIC EBT. Some cashiers also noted that some cardholders did not check the balance before shopping which caused problems when they brought items to the register that were not available in their balance.

15 What were the most commonly asked questions you received from WIC EBT cardholders?

Many cashiers responded to the question by noting the general feedback they received from cardholders rather than specific questions. Some of the questions reported by the cashiers were:

- Which check stand should I use?
- Why is it taking so long?
- Questions about club card savings

General feedback heard by cashiers included that the cardholders:

- Like that signatures were not required
- Could buy the items they wanted rather than all of the items on a check
- Thought some transactions took a long time

- Liked that checks had items listed
- Did not like being limited to two check stands

16 What do you think are the 3 biggest disadvantages of WIC EBT?

Most cashiers responded that the biggest disadvantages were the double scanning and the key entry of prices. They also reported that the transactions took too long and the time it took to process the transaction and particularly if there were any errors that required restarts, was inefficient. One cashier reported that a disadvantage was that WIC EBT was not integrated into their cash register.

17 What do you think are the 3 biggest advantages of WIC EBT?

Most of the advantages noted by the cashiers were actually advantages for WIC participants such as the ability to shop at any WIC authorized store or the flexibility to buy items when they wanted rather than all of the items on a check. Advantages to cashiers included:

- No matching of signatures
- Eliminated issues with unsigned checks (not signed at clinic)
- They did not have to worry about expiration dates
- Do not have to be concerned about approved items/ sizes
- The system tells items that are allowed and not allowed (foods change a lot)

Cashier Interviews – Detailed Responses

The following table provides the cashiers' feedback to the purchase transaction steps and additional questions. A line divides the responses between the two cashiers interviewed from each store.

No.	Purchase Step	POS Action	Cashier Feedback (Retailer 1)	Cashier Feedback (Retailer 2)	Cashier Feedback (Retailer 3)
1	Select Transaction Type	Press the F2 key on the terminal to initiate the Purchase transaction.	• Easy enough _____ • Fine	• Cashier was not trained on POS because she was out that day, but function was not bad _____ • OK- it worked, except when you have to remove an item (which button to use). Training was OK.	• It is all step-by-step- tells you exactly what to do. • Training was not great- this is not the fault of trainers, but the store was too busy to really get through it _____ • The system was self explanatory • Cashier had no training (person forgot override card), so it was hard • She had to make some calls for help initially when prices did not match until she knew what was going on (string cheese was an issue).
2	Enter Cashier Password	If it has been more than two (2) minutes since the last transaction, the terminal will prompt for clerk password before proceeding. Key 4-digit password, and press green ENTER key.	• No problem _____ • Enter this in their own system anyway- just added a zero to other number	• Easy- no problems • Managers had some problems with passwords not being found, but it was OK for cashier _____ • No problems	• Easy- cashiers all used the same password. _____ • No problems • It is the first thing they do, almost automatic

No.	Purchase Step	POS Action	Cashier Feedback (Retailer 1)	Cashier Feedback (Retailer 2)	Cashier Feedback (Retailer 3)
3	Enter/Swipe Card	Slide card through the card reader slot, or manually enter the card number using the gray keys (1-0) on the terminal.	• Sometimes the cashier had to do this step for the client _____ • Cashier swiped 75% of the cards- depending on the customer	• Cashier had to help customers because of space at the counter and the customers not knowing how to swipe (which direction) _____ • Cashier swiped for customers	• The customers did this. The customers seemed to know how to do this _____ • Cashier swiped the card for the customer and handed it back and they enter their PIN
4	Enter PIN	Have the customer key their PIN using the gray keys (1-0) on the terminal keypad, and press the green ENTER key on the terminal keypad.	• Fine _____ • Easy- client remembered their PIN	• Customers entered PIN- they knew their PINs _____ • Customer entered the PIN. Majority of customers did OK- but some mis-entered	• The customers did this, they seemed to know how to do this • It would be nice to have a longer cord on the device The cord was too short to put on the counter with the other POS (fell off and took up space), but it was awkward to have it on the lower part of the counter. _____ • No problems, some people hit the wrong button, but they can clear it out easily. Customers did not seem to forget their PIN
5	Scan UPC	Scan UPC for item presented.	• Worked fine _____ • Pain. Some UPCs are not printed clearly (just a problem with EBT equipment)- eggs, bags of beans, cheese	• Works, but if you miss something the POS does not let you see what has been scanned already _____ • Eggs did not scan- Had to get a UPC for the checkstand for eggs (had card to scan).	• This is a pain- had to scan twice then enter the price • The club card made it harder- had to look for reduced prices and be sure to enter correct price. • Time consuming _____ • Did not mind the double scanning- price entry was the problem

No.	Purchase Step	POS Action	Cashier Feedback (Retailer 1)	Cashier Feedback (Retailer 2)	Cashier Feedback (Retailer 3)
6	Enter Price	Key item price using the gray keys (1-0) on the terminal. Numbers scroll to the left as entered, so there is no need to key a decimal point. Press the green ENTER key.	• Fine. Slower because of double scan- cumbersome. • Difficult- cashier was right handed and had to use left hand to enter prices because of location of the POS. • Finger nails made it hard to enter prices (keys are too small)	• If you make a mistake, not sure how to void 1 amount, so she voided entire transaction • Fine- after you have done it a while it is not bad	• Buttons stick or sometimes they don't hit them hard enough- that caused problems. • Did not like entering the prices- buttons are too small. Took too much time. Club card made it hard to get the right price entered.
7	Scan Next UPC	If more than one item presented, scan UPC of next item and repeat until all items are scanned and prices entered. If no other item presented, press the green ENTER key.	• Same as steps 5 and 6	• Same as steps 5 and 6	• Same as steps 5 and 6 • Scanning each item individually (and entering prices) slowed down the lane.
8	Multi-Item Entry	Press second Purple key, under Yes, below terminal screen), if done. Press third Purple key, under No, (below terminal screen), to return to "Scan UPC" for next item, if not done.	• Never used it. Did not want to make mistakes because she heard about problems • Did not use- could not remember how	• Tried this once and it went wacko-it is so busy in the store that it is easier to separate the items • Could not remember which button to use • Machine would be better set up to show what button is what	• Only used it sometimes- stopped doing this function later in the demonstration so the cashier does not know if it improved later. • The cashier prefers not to use it • Customers did not always check their balances before shopping, so if this function was used the system removed all of the items, not just the overage amount • No issues

No.	Purchase Step	POS Action	Cashier Feedback (Retailer 1)	Cashier Feedback (Retailer 2)	Cashier Feedback (Retailer 3)
9	Connecting (Dial)….. displays (then) Sending Message…. (then) Waiting for Host …	Terminal sends item(s) presented to Host computer for approval. If approved, proceed to next screen.	• Slow _____ • 75% went smoothly • 25 % waiting for host took forever then they had to do it again • Got faster later [high-speed connectivity was implemented in this site]	• Speed is better now, but it was slow at the beginning (estimates it takes 3-5 minutes) [high-speed connectivity was implemented in this site] • One time it just shut down on her • Taking items off is a problem _____ • Took forever • Seemed like it took 30-45 seconds	• Experienced communication errors. Cashiers had to keep trying and sometimes had to unplug it and rescan the items in the EBT system (not in store system) • This happened a lot at first, but got better. Estimated more than 10% of the time, but less than 50% of the time. • Speed was too slow- like dial up on the home computer! _____ • Took too much time to hook up (back and forth) • Quest [WA Food Stamp EBT Card] is faster • Guessed that it took 45 seconds to do this step
10	Enter Coupon	Enter one coupon amount or customer loyalty card savings amount, using the gray keys (1-0) on the terminal. Numbers scroll to the left as entered, so there is no need to key a decimal point. Press the green ENTER key. If no coupon presented, press the green ENTER key to continue.	• NA _____ • Did not use.	• NA _____ • Never did this	• Scanned card or entered phone number, then scanned order. Had to keep track of coupon total to enter the correct price (match screens) • This is time consuming- had to be careful. Cannot go back at the end and see what was entered wrong (if a mismatch) _____ • Club card caused problems- so the cashier asked customers not to use it until the end of the transaction (she would enter the total savings for WIC items then) • If club card scanned first, sale price flips in and she had to be more careful about price entry • The cashier was not trained to erase the club card entry (purple key)

No.	Purchase Step	POS Action	Cashier Feedback (Retailer 1)	Cashier Feedback (Retailer 2)	Cashier Feedback (Retailer 3)
11	Confirm Purchase Amount	Total purchase amount displays. Total coupon amount displays. Press second Purple key, under Yes, (below terminal screen), if done. Press third Purple key, under No, (below terminal screen), to return to "Scan UPC", if not done. Press Zero to clear coupon amount if incorrect, and re-enter amount.	• No problems • Fine	• No problems • One problem one time with formula (approved the transaction, but screen did not appear so she did not know and kept trying to get approval, it said that some items needed to be removed)	• See step 10 above
12	Connecting.(Dial)… displays	Two receipt copies print showing beginning balance, items purchased, and available balance in cardholder's account.	• Quick/ fine • Never had a problem	• Once it started going it was fine, no problems • Quickest part	• See step 10 above • No issues
13	Transaction Completed	The main menu displays after processing is completed. Tear off Customer Copy and give to customer. Tear off Merchant Copy and retain for balancing and record keeping.	• See step 12 above	• Hands over receipts and keeps merchant copy • Quickest- best part	• Receipt is for customers- the cashier simply gives it to them (not her business what balance is left) • Did not know how to load paper when she ran out (not trained), but VERY easy once she knew how to do it.

No.	Question	Cashier Feedback (Retailer 1)	Cashier Feedback (Retailer 2)	Cashier Feedback (Retailer 3)
14	Any additional comments about the purchase process or suggested improvements.	• Slow • Location of unit was in the way (bumped into it) • Customers did not get balances before shopping _____ • It would be faster if it was tied into machines • Customers did not pay attention to balances- knew foods but not balances • If denied items they did not know ahead of time- could it beep or something if not allowed/ approved? • Liked card, went smoothly- she did training for other staff • Customers liked being able to go to other stores	• Cashier likes checks better- the customers know what they can get and they can get the amount they want _____ • System is horrible • One transaction took 45 minutes (communication error), everything was doubled in the totals • Good for customers to have smaller orders • System is crazy • It would be a good idea if it was smoother- like if everything could be scanned at once (like Quest) it would be better	• There is a problem with customers not checking balances before shopping. If they did not know their balance, they would often try to go back to the lane to get more items once they knew what they had. • She is an experienced cashier and knows what items are WIC approved (pineapple-orange-banana is not allowed, but some others do not know this), so she could stop problems before scanning twice. • This is a great concept- other people can do the WIC shopping, but it needs to be faster. Could it be hooked in like EBT (FS)? Needs a link to be faster. • Required to be at 100% speed, but with this system she was down to 80%. _____ • Customers were well trained- just had trouble knowing which lane to use. • Make it like Quest card so the prices don't have to be entered; hook it into the regular system

No.	Question	Cashier Feedback (Retailer 1)	Cashier Feedback (Retailer 2)	Cashier Feedback (Retailer 3)
15	What were the most commonly asked questions you received from WIC EBT cardholders?	• Some liked it, some did not- either liked it or did not • Slow • Liked that checks had items listed • Liked no more signatures, buying part of the prescription _____ • Why is it taking so long? • Limited to 2 lanes/ check-stands • One lady loved it!!	• Takes a long time • One lady went back to checks- had big issue with other checker _____ • NA	• Which checkstand do I go to? They were not always sure which lanes had WIC. • Wanted to use the lane for the balance inquiry- then it held up the lane when they returned to get more items. • Some people still get all of the items, but others only bought partial items. _____ • Liked the flexibility for purchases • 2 for 1 club card deals (cereal/eggs)- Did the free one have to be used for WIC or could it be free for the customer • Time- especially if something was wrong. At beginning, 3-4 problems over 2 weeks required to back out of system, then it got better • Things were slow and there were club card issues, but it got better.
16	What do you think are the 3 biggest disadvantages of WIC EBT?	• Slow • Location of machine • Double scan was not efficient _____ • Speed • Punching price in • Customers knowing balance	• Speed was slow • Customers did not check balances- sometimes did all the work and had to void if not sufficient balance. _____ • Removing items was a problem	• Time • Slow _____ • Not hooked into system (scan, scan, enter)

No.	Question	Cashier Feedback (Retailer 1)	Cashier Feedback (Retailer 2)	Cashier Feedback (Retailer 3)
17	What do you think are the 3 biggest advantages of WIC EBT?	• Use card for whatever they need- not entire prescription • No outdated checks • Eliminate unsigned checks (not signed at clinic) _____ • Shop at any store • No matching signatures, verify dates, hope check is flat enough to go through the machine, making sure pre-signed, other shoppers use a card so not as noticeable	• Customers are able to get smaller orders- just what they need • Don't have to worry about expiration dates • Not worry about approved items/ sizes. _____ • Customers can get what they want	• They can get what they need as you need it • Person signing the check at the clinic does not have to be the one to shop. • They can get what they need as they need it _____ • Can't get fired (for signature errors!) • (system) Tells items that are allowed and not allowed (foods change a lot)

Manager Interviews

Retailers from the participating stores were interviewed to gather additional feedback on the demonstration in addition to the questions asked on the retailer survey. Questions were asked to determine how WIC EBT affected their job duties and to gather information on issues that were encountered. Two of the managers were the main contacts for their stores for WIC EBT throughout the demonstration. One of the stores experienced turn-over in management. The main management contact was no longer working at the store when the interview took place. Another manager who had been at the store during the demonstration was interviewed, but was less familiar with the project than the previous point of contact.

Manager feedback, like cashier feedback was mixed. All agreed that they like the concept of WIC EBT and hope to see it continue to evolve and improve. They also agreed that they would prefer it if it were integrated into their cash register system rather than using a stand beside system.

The following provides an overview of the responses. All responses are provided in a table following the overview.

1. Did WIC EBT improve management tasks? If so please describe.

The managers generally felt that there was no improvement to their job tasks. One indicated that if the terminal issues were resolved, he felt WIC EBT would decrease food instrument (check) errors and loss to the store.

2. Did WIC EBT make any management tasks more difficult? If so, please describe.

It was stated that WIC EBT caused issues in-lane due to double scanning, key entry of prices, communication errors, and slow processing speeds. Bookkeeping was also cited as an area of difficulty by one store. One manager noted that many of the issues would be overcome if WIC EBT were integrated into their cash register system.

3. Did you ever have to cancel any WIC EBT transactions (since Cancel transactions require supervisor/manager intervention)? What was the reason the cancel was needed? Were there any issues related to the cancel transaction? If so, please describe.

In answering this question, many of the managers were confused between the “Cancel” Transaction (a separate transaction done to void out/cancel a completed transaction) and restarting or canceling the transaction before it was completed. Two managers stated that that Cancels were common, however transaction statistics show that the Cancel Transaction was rarely used. Cancels/restarts during a transaction occurred regularly to correct keying errors or when communication errors occurred.

4. What were the most common issues with the WIC EBT system that were reported to you by your staff?

Speed and communication errors were reported as common issues. Additionally, not knowing if a keying error was made until the end of the transaction was problematic. One manager stated that cashier productivity was affected by the implementation of WIC EBT in their store, but that she liked the idea of the card and the customers seemed to like it as well.

5. What were the most common issues with the WIC EBT system that were reported to you by customers?

The managers indicated that they received mixed feedback from customers about the system. They did not always like it because of errors and restarts causing the transactions to sometimes be slower than WIC checks. One manager stated that customers would ask cashier staff how WIC EBT was going for them.

6. What changes to the WIC EBT system do you think would improve the system for your staff and customers?

The managers would like to see the speed of the transaction improved. Reduction/elimination of communication errors was also requested. All would prefer an integrated system. One manager would like to see the item name and price displayed as it is scanned. Another manager would like to see improvements in the bookkeeping functions and end-of-day process, such as a flexible end-of-day initiated by the store rather than the host.

7. Were there any more or less cashier errors as a result of WIC EBT? What kind of errors occurred and how were they resolved? Did that process take more or less time than resolving WIC check discrepancy or error issues? Were there any changes to disciplinary actions required for cashier errors as a result of WIC EBT?

One store manager stated that because they have experienced cashiers and low turnover, very few keying errors were made because cashiers were careful when entering prices. Another manager indicated that cashiers had problems when they got confused and thought that it took longer to resolve issues with EBT than with checks. The third manager reported that there were keying errors and issues with items being over the state's maximum price. None of the stores indicated that any disciplinary actions were taken when errors were made. One stated that because it was a demonstration they did not use corrective actions, however if they were in place, people would have been fired for errors made.

8. What were the most commonly asked questions you received from WIC EBT cardholders?

The responses provided to this question were not necessarily questions asked by the cardholders, but feedback that they provided. The managers noted that the cardholders liked the card and being able to shop at more than one store.[11] Cardholders asked about what caused the communication errors and what the cashiers thought of WIC EBT.

9. What do you think are the 3 biggest disadvantages of WIC EBT?

The managers felt that the transaction process should be faster and the communication errors needed to be resolved. One of the manager's bonus was based on cashier through-put and felt her participation in the demonstration slowed down her lanes. Because of lower productivity her bonus was affected. Although she is a proponent of WIC EBT, she would likely not participate in another demonstration because of the monetary effect to her personally.

One manager stated that not knowing the balance before starting the transaction was a disadvantage. He would like to be able see items and prices on the screen as they are being entered.

Another issue stated was price discrepancies due to maximum price overages. While not a frequent occurrence there were a few items where the store shelf prices had increased during the demonstration which required their maximum price increased. These were not identified until maximum price overages were being noticed in the reconciliation process.

A disadvantage reported by one of the managers was the account and banking processes, which did not fit in well with current end-of-day and reconciliation processes. However these issues appeared to be specific to only one of the stores.

10. What do you think are the 3 biggest advantages of WIC EBT?

The managers mostly cited the advantages of WIC EBT for the cardholders. They stated that it was better for the customer than checks and it was an advantage that they did not have to buy all of their WIC items at ones. One manager indicated that, as long as there were no communication errors, it was quicker. He also noted the modern technology as an advantage and that he thought cashier errors were decreased.

[11] Currently in Washington State clients must select a specific store purchasing their WIC items and can only use their checks at that store. EBT allowed the participants in the demonstration to shop at any of the three participating stores.

Management Interviews – Detailed Responses

The following table provides the complete responses to the manager interview questions.

No.	Question	Manager Feedback (Retailer 1)	Manager Feedback (Retailer 2)	Manager Feedback (Retailer 3)
1	Did WIC EBT improve management tasks? If so please describe.	• If no communication errors it would be better because it would decrease FI errors and loss to store • It is important to know how to do paper transactions to do EBT well	• Not really	• No
2	Did WIC EBT make any management tasks more difficult? If so, please describe.	• Cashiers had to move to other check-stands to help others (particularly if there was a comm. error)- they needed to pull someone to run her lane if she had to help another staff members • Communication errors took place 1 of 10 times (on average). Improved after high speed, but a few still happened. Night crew had a lot more of these	• Yes- it was slower to scan items and wait, so it slows up the lanes • Single scan would improve this	• Most tasks became more difficult- bookkeeping, checkout speed, communication errors (increased lane time when it went down) • Lines were longer- which was a problem for WIC and non WIC customers • It sometimes took 3 minutes to do a simple 4 item transaction (some took 12 minutes)
3	Did you ever have to cancel any WIC EBT transactions (since Cancel transactions require supervisor/manager intervention)? What was the reason the cancel was needed? Were there any issues related to the cancel transaction? If so, please describe.[12]	• Yes- because if interrupted and could not tell what had been scanned and had to start over (easier to start over then to figure out what had been done)	• Once because a cashier did not know how to remove a denied item. He just rescanned it all and processed the transaction again	• Several times- comm. Errors caused them to have to stop the process. Sometimes there were multiple comm. Errors in a single transaction • Had to start over if totals did not match • Process flow was not good- subtotal would have helped (for not allowed items)

[12] Note that there may have been some confusion about what was meant by "Canceling" a transaction. The cancel referred to in the question is a separate transaction used to void out or cancel a completed transaction. The responses tend to refer to restarts or canceling a transaction before it is completed. Transaction statistic show that the Cancel transaction was rarely used.

No.	Question	Manager Feedback (Retailer 1)	Manager Feedback (Retailer 2)	Manager Feedback (Retailer 3)
4	What were the most common issues with the WIC EBT system that were reported to you by your staff?	• Comm. Errors • Would not know about errors until the end • Training- learned a lot on the job- the more they did transactions the better they became • Some things were intuitive, others were not	• Communication errors • Running the report at the end of the day would sometimes freeze up. He had to unplug and replug in the POS. This has happened the last 2 times he has done this.	• Slow • Like the idea of a card (hopefully customers would now what to buy) • Customers like it • Staff are graded on productivity in the lane (customers waiting, number of items scanned per transaction). Manager's bonus is based on the productivity. Checkers need to be at 100%, but one dropped to 65% with WIC EBT (manager reported that she can be 110-130%)
5	What were the most common issues with the WIC EBT system that were reported to you by customers?	• Mixed feedback- they were curious and asked staff how it was going for THEM • Customers were pretty good at checking balances before shopping	• Did not like it because there was always a problem (checkers, item balances) • They liked not having to buy all items at the same time • Thinks they came in more times and bought fewer items at each visit	• Non-WIC customers: waiting times were to long. • EBT was slower than paper because of double entry and having to start over
6	Are changes to the WIC EBT system do you think would improve the system for your staff and customers?	• Want to see item name and price as scanned (not just subtotal) • Improve the communication errors • Max price is on 1 item, but it was rare that the max was reduced.	• Single scan would be very cool • It would be better if it recognized all approved items • The computer did not pick up all UPCs for some eggs and cheeses (may have been other food items, but he only noticed these two)	• Make it as fast as a regular transaction • Banking issue- store did not close books when system closed (store at 10, system later), so had to match up transactions between close times. • It was a nightmare to match up transactions- They had to juggle to match up the numbers.

No.	Question	Manager Feedback (Retailer 1)	Manager Feedback (Retailer 2)	Manager Feedback (Retailer 3)
7	Were there any more or less cashier errors as a result of WIC EBT? What kind of errors occurred and how were they resolved? Did that process take more or less time than resolving WIC check discrepancy or error issues? Were there any changes to disciplinary actions required for cashier errors as a result of WIC EBT?	• Low staff turnover at this store- they made very few errors (1 mistake is known) • More careful because they knew they had to be	• Problems with items when they got confused • More time to resolve issues with EBT • No changes to discipline process- would not change with EBT	• No difference, but they did not use any corrective actions toward checkers in the pilot. People would have been fired based on pilot results if corrective actions were in place • Checkers wanted a fail safe system- cheese prices sometimes did not match • MAX price for paper was $20-30 above the FI price (so fewer reduced payments), but with EBT it is a per item max price so it is reduced more often.
8	What were the most commonly asked questions you received from WIC EBT cardholders?	• Curious- see above • Why communication errors?	• Like going to other stores • Confusion up front in store • Time	• More sufficient than paper customers, but liked card • Buying trends appear to be the same.
9	What do you think are the 3 biggest disadvantages of WIC EBT?	• Communication errors • Not knowing customer balance at start • Screen- see items as they are being input	• Time consuming- Paper is pretty quick compared to EBT	• Time to process- would like to see EBT, but would not volunteer to be a pilot again (does not want to miss out on two bonuses) • Price discrepancies (UPC update by the State) • Accounting/ banking processes
10	What do you think are the 3 biggest advantages of WIC EBT?	• Quicker without comm erors • Cashier errors decreased • Modern technology	• Customers do not have to buy all items at once	• Card is a benefit for customers versus checks • Better for WIC customer • Balance feature

Bookkeeper Interviews

A bookkeeper from each participating location was interviewed to gather their feedback on the demonstration, identify any areas that were particularly problematic related to their job duties, and to find out if they had any suggestions for improving the system. Similar to the cashier interviews, the bookkeepers were asked to step through their WIC EBT process and identify for the interview any areas that were difficult or caused problems.

Bookkeeper feedback from two of the stores was relatively positive regarding the WIC EBT processes related to their job duties. The bookkeeper at the third store had more difficulty with daily reconciliation due to issues with end-of-day times, the constraints of the store financial management system, and difficulties with reports.

The following is an overview of the responses provided by the bookkeepers when asked about the WIC EBT terminal functions and their experience with the demonstration. Detailed bookkeeper responses have been provided in the table that follows the overview.

Terminal Process: End-of-Day

End-of-Day was a daily process initiated by the store to close the batch file containing that day's transactions. At the same time, the terminal open a new batch file for the next day's business. This was typically a quick process that did not require the terminal to connect to the host. Host end-of-day was initiated automatically and all store shares the same end-of-day time, which was 12:00 am.

Two of the bookkeepers found this to be an easy process with relatively few issues with one exception. It was noted that an issue associated with password entry had occurred.

The third bookkeeper stated that he would prefer to control when the host end-of-day occurred so that it would match their store business day. That particular retailer performed their store end-of-day two hours before the actual store close. If a WIC EBT transaction occurred during those two hours it would be reported as the next day's activity, but on the WIC EBT host, it was recorded as today's activity, which created reconciliation difficulties for the bookkeeper and management staff.

Terminal Process: Settlement

The settlement process is initiated every day following the host end-of-day. Most stores did it first thing in the morning. During the settlement process, the terminal connected to the host and downloaded the auto-reconciliation file, which contained what the host reported to be the transactions that occurred the previous day. That file is used for the auto-reconciliation report, which is discussed later in this section.

For the most part, the bookkeepers agreed this was a quick and easy process. One suggested that it would be nice if a confirmation receipt was printed when the task completed.

Terminal Process: Summary and Detailed Reports

The terminal provided several reports based on transaction data contained in the batch files. The Summary Report provided a roll-up count and dollar amount totals for a particular batch (business day). The Detailed Report would list out each transaction in a batch. There were two forms of the Detailed Report, one that listed all of the transaction and one that broke out the transaction by user ID.

Two of the bookkeepers did not identify any issues with these processes. Essentially, they use the reports to match up the transaction, which worked fine. It was noted that the reconciliation process took the same time as paper; it just had different tasks. The third bookkeeper stated that he was disappointed in the reports and would like to see more detail particularly for maximum pricing overages.

Terminal Process: Auto-Reconciliation Report

The auto-reconciliation report was designed to help the bookkeepers perform their daily reconciliation. The report identified the total amount of the retailer's deposit for transactions performed on that terminal and identified any discrepancies in the transactions. The terminal compared the transaction data transmitted in the auto-reconciliation file from the host to the transaction recorded in the POS. Any mismatches would be reported on the Auto-Reconciliation Report such as

- Transactions reported on the host, but not in the POS;
- Transactions reported in the POS, but not on the host; or
- The requested amount of the transaction did not match the completed amount of the transaction.

The last mismatch described above meant that an item or items had exceeded the maximum price set by the state. The report only provided information at the transaction level; therefore the bookkeeper could not easily identify which item cause the mismatch.

Toward the end of the pilot an issue was identified with how the report was displaying information. Changes were made to the software resolve the issue, but it returned again shortly before the conclusion of the demonstration leaving little time for a resolution to be identified.

Feedback from the bookkeeper indicates that two of the stores had relatively few issues with the auto-reconciliation report. The third bookkeeper had issues using the report for reconciliation due to problems with the report and the differences in the end-of-day times between the host and the store. The retail manager faxed the bookkeeper host reports

that contained additional information he could use in his reconciliation process.

Are there any changes to reports that you think might improve the WIC EBT terminal reports? Such as format changes, additional information, and timing & availability.

The bookkeepers provided a few suggestions for changes such as notification of maximum price overages and the ability to match the day's sales. One of the bookkeepers, who was responsible for the initial set up of user IDs, thought ID and password set up was a difficult process, but only had to do it once.

Please describe steps you take reconcile store reports to the EBT POS reports to daily deposits?

Each of the bookkeepers described their reconciliation process. Please see the bookkeeper interview response table for detailed information of these processes. The processes described were not particularly involved, but were dependent on accurate data.

Any additional comments you would like to share about bookkeeper tasks?

Two of the bookkeepers indicated that WIC EBT was same or easier than processing checks. Mismatches in the reconciliation process were typically the main issues. One bookkeeper had difficulties reconciling when there were max price overages or keying errors made by cashier and would like to see some changes made to address those issues.

What were the most commonly asked questions you received from WIC EBT cardholders or from cashiers?

General feedback was provided by the bookkeepers in response to this question. However specific question included:

- Questions from checkers related to how to change the paper, issues when password did not work
- Cashiers asked how they could re-review what was put in the system.

What do you think are the 3 biggest disadvantages of WIC EBT

Some of the disadvantages noted were disadvantages for cashiers versus bookkeepers such as double scanning and difficulty recovering from errors. Disadvantages specific to bookkeepers included:

- Mismatches during reconciliation
- Reports are on long, thin paper and are difficult to keep organized
- If the terminal end-of-day is skipped, reports tended to be very long for a week

What do you think are the 3 biggest advantages of WIC EBT?

Bookkeepers cited advantages to customers such as flexibility and more information through balance information on receipts. Specific bookkeeper advantages that were cited included accuracy and the elimination of returned checks.

Bookkeeper Interviews – Detailed Responses

The following table provides the complete responses to the bookkeeper interview questions.

Terminal Process	Bookkeeper Feedback (Retailer 1)	Bookkeeper Feedback (Retailer 2)	Bookkeeper Feedback (Retailer 3)
End-of-Day *POS Action* • Press the purple PF key on the terminal labeled "MORE". • Press F2 to initiate End-of-Day. • Enter Supervisor Password, and press green ENTER key. • End-of-Day Report transaction receipt prints • Press red X key to return to Main Menu	• Very easy- took less than 5 minutes • She did it first thing in the morning	• Night PIC does this (he said that it is just another task- easy to do) • Sometimes it worked, sometimes it did not work. Password issue that required them to unplug and re-plug the machine.	• If they could do EOD when they wanted, it would have solved half the problems • They want EOD to be "on demand" when they want to do it- not a set time each day
Settlement *POS Action* • Press the purple PF key on the terminal labeled "MORE". • Press F3 to initiate Settlement. • Enter Supervisor Password, and press green ENTER key. • Settlement Report transaction receipt prints.	• Quick and easy	• Night PIC (James) said that he just ran it all at once- took about 1 minute for dial up. Would set them and go to next machine- did multiples at one time.	• It is fine, but it would be nice if it could auto-print a confirmation when it has completed this task.

Terminal Process	Bookkeeper Feedback (Retailer 1)	Bookkeeper Feedback (Retailer 2)	Bookkeeper Feedback (Retailer 3)
Summary Report *POS Action* • Press a purple PF key on the terminal labeled either "MORE" OR "REPORTS". • (Either key begins the process.) • Press F1 to select Reports. • Enter Supervisor Password, and press green ENTER key. • Press F2 to select Summary Report. • Press the F key for the report you want, such as F1 for the most current report. • The terminal prints the selected Summary Report. • Select another report or press the red X key to return to the previous menu.	• OK	• Review the report and matched things up- worked fine on her end • Takes the same time for EBT as paper- just different tasks	• See below
Detail Report *POS Action* • Press a purple PF key on the terminal labeled either "MORE" OR "REPORTS". • (Either key begins the process.) • Press F1 to select Reports. • Enter Supervisor Password, and press green ENTER key. • Press F1 to select Detail Report. • Press the F key for the report you want, such as F1 for the most current report. • The terminal prints the selected Detail Report. • Select another report or press the red X key to return to the previous menu.	• OK	• NA	• Disappointed in this • Detail on the transaction, but not maximum price paid (they would like to see the max price- it would be helpful to know how)

Terminal Process	Bookkeeper Feedback (Retailer 1)	Bookkeeper Feedback (Retailer 2)	Bookkeeper Feedback (Retailer 3)
Auto-Recon Report *POS Action* • Press the purple PF key on the terminal labeled "MORE". • Press F1 to select Reports. • Enter Supervisor Password, and press green ENTER key. • Press F3 to select Auto Recon Report • Press the F key for the report you want, such as F1 for the most current report. • The terminal prints the selected Auto Recon Report • Select another report or press the red X key to return to the previous menu.	• OK • Other Bookkeeper who works just 1 day a week as bookkeeper picked it up quickly- very easy	• Worked fine • Sometimes she had to reset the password • Totals sometimes did not match up until the next day (this was reported to Jeane Fink)	• Mismatched listing was used a s tool to show what is different (after it is paid or the amount is reduced) • For a majority of the early reports, everything showed up in the mismatch area, but this got better • Totals did not always match at night after close (different close times)

Follow Up Questions	Bookkeeper Feedback (Retailer 1)	Bookkeeper Feedback (Retailer 2)	Bookkeeper Feedback (Retailer 3)
Are there any changes to reports that you think might improve the WIC EBT terminal reports? Such as: • Format changes • Additional information • Timing & Availability	• Format was OK for what she does. Corporate does all the bank corrections and they did not complain (store did 3-4 WIC EBT transactions a day) • Training booklet was good • Entering cashier names (initial set up) was a pain, but only had to do it once on each machine	• Changes would include matching the day's sales • Format, info and timing/ availability are fine	• Terminal- they did not sign in under their own names, so it was difficult to identify which cashier did each transaction • It would have helped if max price was shown in the POS- or a beep that it is over the max price

Follow Up Questions	Bookkeeper Feedback (Retailer 1)	Bookkeeper Feedback (Retailer 2)	Bookkeeper Feedback (Retailer 3)
Please describe steps you take reconcile store reports to the EBT POS reports to daily deposits?	• Take till and get slips • Balance till with report • Put aside until deposit comes in • Corporate matches the total with the deposit • EBT settlement- EOD is at midnight and she does the rest of the checking at 3am when she comes to work	• Checker drops off the slips • She adds the slips and matches to the report • Report has checker identifying information so it is easy to match up slips	• Made extra copy of WIC and register receipts • Matched receipts and stapled together, checked for "funny" stuff • Checked against tender type report • Checked against the Auto-Recon report (Jeane faxed a report of information after max prices were adjusted)
Any additional comments you would like to share about bookkeeper tasks?	• Easier than checks- does not worry so much about getting returns (returns are a hassle- WIC stuff as well as disciplinary action)	• Nothing extra to do for her tasks • Takes a few seconds to run the report • Only issue is when there is no match- this only happened a few times.	• Pricing issue- there is no way to see max price and since it is by ITEM (not FI) it was hard to know if they were going over. • Checker errors will always happen, but they need something to help them deal with it [NOTE: he could not describe exactly what he wanted] • More issues with max price now (Ideas: could it be by total transaction, could the State raise max prices, could the terminal beep if the price was over the max?)
What were the most commonly asked questions you received from WIC EBT cardholders or from cashiers	• Good customers • Staff asked how to do this (transaction) at first	• Does not talk to customers. Questions from checkers related to how to change the paper, issues when password did not work • Training was good	• Cashiers asked how they could re-review what was put in the system. • People are taking more time to get things right (slower), which reduced productivity • The input of the number of items should be replaced with a confirmation of the number (system gives number)

Follow Up Questions	Bookkeeper Feedback (Retailer 1)	Bookkeeper Feedback (Retailer 2)	Bookkeeper Feedback (Retailer 3)
What do you think are the 3 biggest disadvantages of WIC EBT?	• Double scan (slowed productivity) • Errors/denials- hard for cashier to figure out what did not go through	• Not matching (she knows what is happening, but still had to deal with mismatches)	• Reports- long thin paper is hard to keep organized • If EOD is missed, reports get very long for a week • Communication errors- problems with reports, customers, no high speed communication
What do you think are the 3 biggest advantages of WIC EBT?	• Accuracy • Time saver- IF no more double scanning • Don't worry about returned checks	• Does not make a difference for her job tasks	• Customers- checking balances. They have better information for customers on receipts. • Customers cannot hurt the card as easily as checks (washing, etc.)

5. CLINIC FEEDBACK

5.1. Summary of Findings

The Marybridge WIC clinic participated in the demonstration. Clinic staff who supported the demonstration were enthusiastic and excited about their participation. While most of the staff were exposed to WIC EBT and provided support, three to four staff provided the majority of the support to the project.

To support the clinic, the State spent time upfront integrating WIC EBT functions into the clinic certification system, CIMS. The result was relatively seamless. CIMS was enhanced to support both issuance via checks and via EBT. Function such as card issuance and balance inquiry were also integrated. The PIN change function was not included in CIMS and required that clinic staff access stand-beside software outside of CIMS to change a PIN.

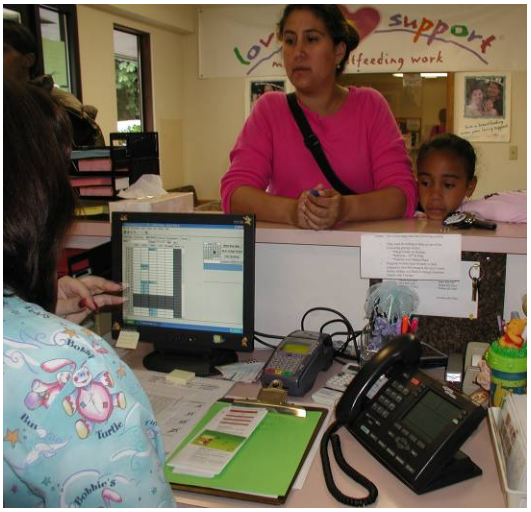


Exhibit 5-1: Client Receiving Training and WIC EBT Card

Feedback was gathered through an online survey and through an informal on-site interview with clinic staff. The survey results show that clinic staff were relatively satisfied with the system and the demonstration.

Key points that can be identified from the clinic feedback include:

- The demonstration was a positive experience for most clinic staff and the felt that most clients liked WIC EBT.
- Some staff felt that WIC EBT improved the clinic flow.
- Multi-month benefit issuance should be supported in future rollouts to reduce staff time.[13]
- Customer service support for clients should be improved.

[13] Single month issuance was a policy decision, not a limitation of the system.

5.2. Survey Responses

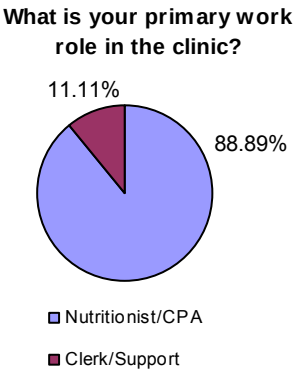
Clinic staff members were surveyed via an online questionnaire to gather their opinions about the demonstration. Interest was specific to how WIC EBT affected the clinic and workflow, feedback on CIMS, and system reliability and ease of use. Nine staff started the survey and seven actually completed it. The responses include data from the partially completed surveys.

Roles and Responsibilities

The survey asked the respondent to identify their primary work role. One respondent identified herself as Clerk/Support, while the remaindering respondents were Nutritionist/CPAs.

What is your primary work role in the clinic?		
Nutritionist/CPA	**8**	**88.89%**
Clerk/Support	1	11.11%
Other	0	0.00%
Total	**9**	

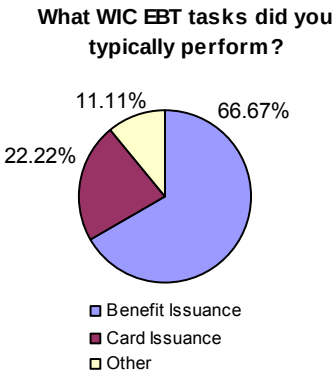
Exhibit 5-2: Clinic Staff Survey Results – Roles and Responsibilities (1)



Most of the respondents indicated that their role was benefit issuance. Card issuance was mainly supported by a front desk clerk and other staff as needed based on volume.

What WIC EBT tasks did you typically perform?		
Benefit Issuance	**6**	**66.67%**
Card Issuance	2	22.22%
Other	1	11.11%
Total	**9**	

Exhibit 5-3: Clinic Staff Survey Results – Roles and Responsibilities (2)

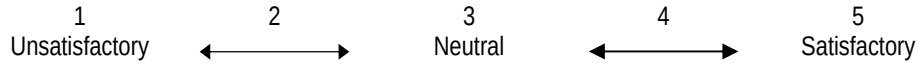


Staff were asked about how many hours on average per week they spent on EBT related activities. The responses ranged from 2 to 12 with the average response being 4.2 hours. The hours spent per week likely

fluctuated during the demonstration with the most hours spent when clients were being added to the system earlier in the project.

Satisfaction Ratings

The clinic staff were asked to provide feedback in the form of ratings of functions, project components, and comparisons to paper check processes. Ratings were provided on a scale of 1 to 5 with 1 being Unsatisfactory, 3 being Neutral, and 5 being Satisfactory.



Clinic staff responses were mostly positive in the 4 or 5 range for the majority of the questions showing general satisfaction with the system and the demonstration. The following tables provide the results of each question.

System Satisfaction

Rate the EBT system functions, in relation to your specific job tasks?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	3	42.86%
5 (Satisfactory)	**4**	**57.14%**
Total	**7**	

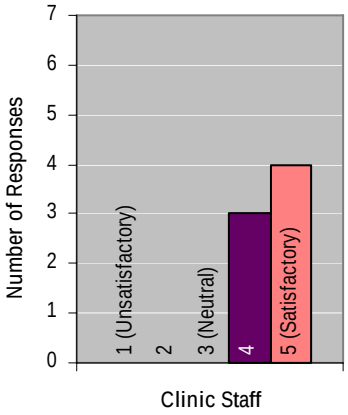


Exhibit 5-4: Clinic Staff Survey Results – System Satisfaction (1)

All staff rated their satisfaction of the system higher than neutral with the majority indicating that they were satisfied with the system.

Rate the reliability of CIMS for EBT issuance versus check issuance?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	1	14.29%
4	**3**	**42.86%**
5 (Satisfactory)	3	42.86%
Total	**7**	

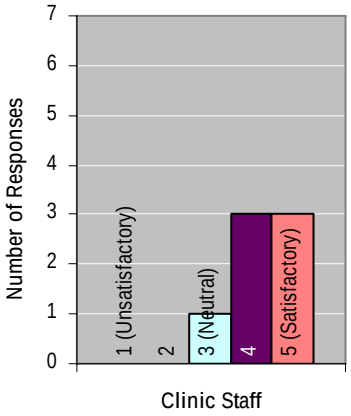


Exhibit 5-5: Clinic Staff Survey Results – System Satisfaction (2)

Most staff rated their satisfaction of the reliability of CIMS higher than neutral with an even split between 4 and 5 ratings.

Rate the simplicity of creating CIMS EBT benefits as compared to check issuance?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	2	28.57%
5 (Satisfactory)	**5**	**71.43%**
Total	**7**	

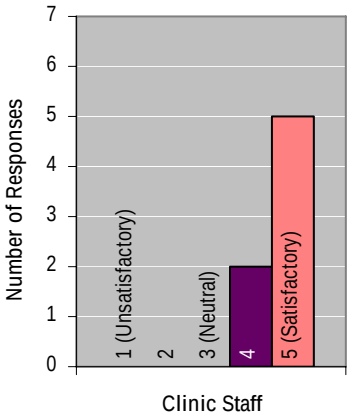


Exhibit 5-6: Clinic Staff Survey Results – System Satisfaction (3)

All staff rated their satisfaction of the simplicity of creating CIMS EBT benefits higher than neutral with the majority indicating that they were satisfied.

Rate the simplicity of updating CIMS EBT benefits as compared to check issuance?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	2	28.57%
4	0	0.00%
5 (Satisfactory)	**5**	**71.43%**
Total	**7**	

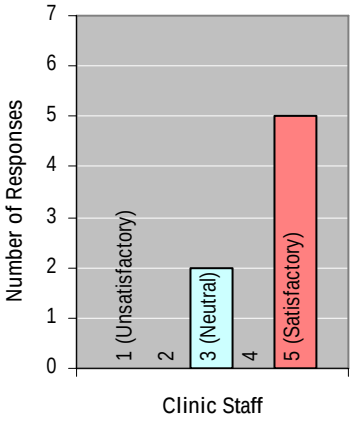


Exhibit 5-7: Clinic Staff Survey Results – System Satisfaction (4)

A few staff were less satisfied with the simplicity of updating benefits in CIMS as compared to the creation of benefits. Cancelling benefits that had been issued, but had not had any purchases against the benefits, was typically an easy process. The system as designed did not, however, allow benefits to be voided that have had any purchases against them, therefore requiring an adjustment transaction rather than a cancel. Because adjustment transactions were not integrated into CIMS for the limited demonstration, clinic staff had to contact the State WIC help desk for support.

Speed and Time

Rate the speed of issuing an EBT card compared to check issuance?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	1	14.29%
4	2	28.57%
5 (Satisfactory)	**4**	**57.14%**
Total	**7**	

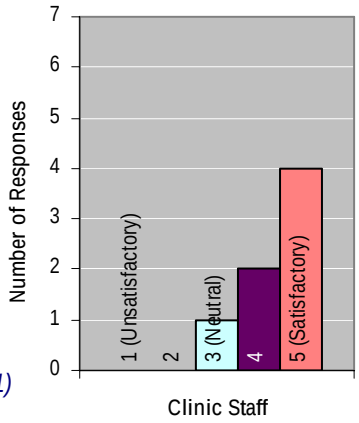


Exhibit 5-8: Clinic Staff Survey Results – Speed and Time (1)

Most staff rated their satisfaction of the speed of issuing an EBT card higher than neutral with majority indicating satisfaction with the speed.

Rate the amount of time needed to train a client on using an EBT card versus training for checks?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	2	28.57%
4	**4**	**57.14%**
5 (Satisfactory)	1	14.29%
Total	**7**	

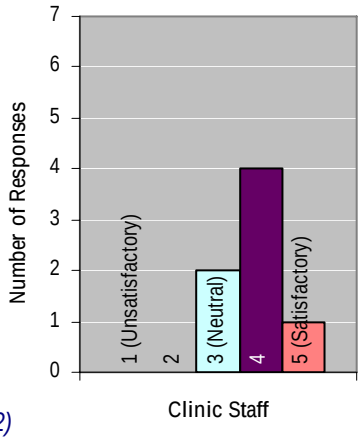


Exhibit 5-9: Clinic Staff Survey Results – Speed and Time (2)

Clinic staff gave the amount of time needed to train a client a lower rating than most other questions in this section of the survey; however, no one rated it lower than 3 (neutral). The majority rated client-training time as a 4. Client training for new clients could be time consuming especially for the staff that did not perform this task frequently. There were several points to cover in the overview in order to thoroughly training the clients. The more experienced card issuers could walk through the training with the client fairly quickly, but client questions could slow the process down.

Support

Rate the support you received from the State WIC Help Desk (for EBT issues)?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	3	42.86%
5 (Satisfactory)	**4**	**57.14%**
Total	**7**	

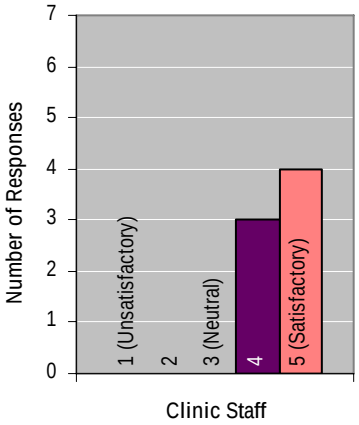


Exhibit 5-10: Clinic Staff Survey Results – Support (1)

The State WIC help desk was available to the clinic staff to troubleshoot CIMS issues and to perform certain tasks such as benefit adjustments when needed. The help desk maintained several staff able to help the clinic, but one helpdesk staff was primarily assigned to EBT and was the main point of contact. The help desk could consult with WIC Information Systems (IS) staff for the more technical questions as needed. According to the survey, clinic staff were generally satisfied with the support that they received.

Rate the support you received from the EBT Customer Service Line (for EBT issues)?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	**6**	**85.71%**
4	1	14.29%
5 (Satisfactory)	0	0.00%
Total	**7**	

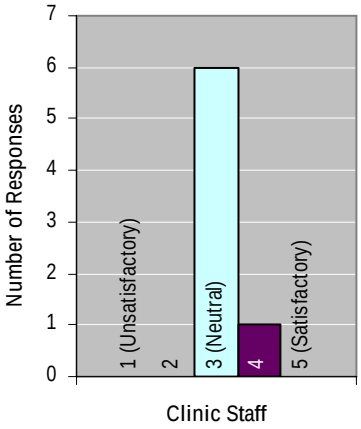


Exhibit 5-11: Clinic Staff Survey Results – Support (2)

The clinic received most of their support from the State WIC help desk; the EBT customer service line provided by SVS was rarely called except to cancel a card that was going to be replaced. Most staff did not have a lot of exposure to the customer service line. Ratings show that the majority of the staff were neutral about the support received from the EBT customer service line. Comments gathered during the clinic interview stated some dissatisfaction with the level of knowledge of customer service agents.

Training

Rate the amount of training you received on the EBT system?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	2	28.57%
5 (Satisfactory)	**5**	**71.43%**
Total	**7**	

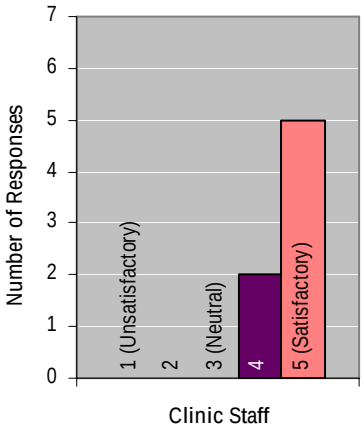


Exhibit 5-12: Clinic Staff Survey Results – Training (1)

Rate the quality of training you received on the EBT system?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	1	14.29%
5 (Satisfactory)	**6**	**85.71%**
Total	**7**	

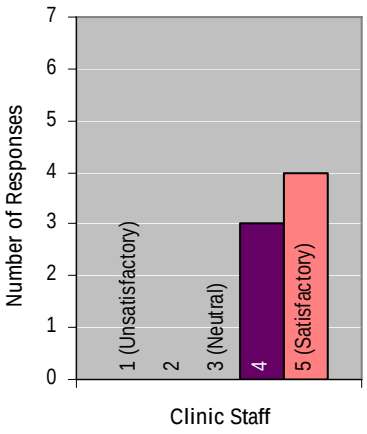
Exhibit 5-13: Clinic Staff Survey Results – Training (2)

Staff indicated satisfaction with both the amount and quality of training. The State trainer provided an initial session for clinic staff prior to the implementation of the demonstration and then follow-up training was provided after the system was operational. Only a limited number of staff were initially trained because the initial plan was to limit EBT activities to specific days and staff. Later EBT hours were expanded to all regular clinic hours requiring that the remainder of the staff be brought up to speed on EBT. Verbal feedback by some of the staff indicated a preference that all staff be trained upfront.

Training/Reference Materials

Rate the amount of reference materials you received for the EBT system?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	3	42.86%
5 (Satisfactory)	**4**	**57.14%**
Total	**7**	

Exhibit 5-14: Clinic Staff Survey Results – Training/Reference Materials (1)



Rate the quality of reference materials you received for the EBT system?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	2	28.57%
5 (Satisfactory)	**5**	**71.43%**
Total	**7**	

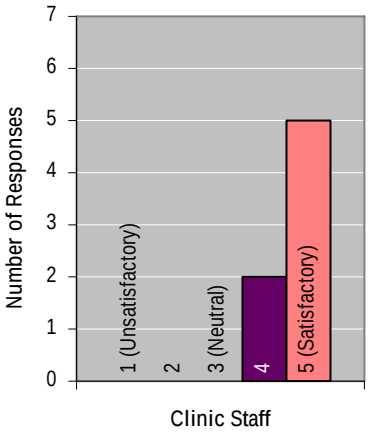


Exhibit 5-15: Clinic Staff Survey Results – Training/Reference Materials (2)

Staff indicated satisfaction with both the amount and quality of reference materials received. Training materials on CIMS functions were developed by the State trainer. MAXIMUS developed the training materials that supported the stand-beside EBT clinic software.

Overall Satisfaction

Rate your overall feelings about the EBT demonstration?		
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	**3**	**50.00%**
5 (Satisfactory)	3	50.00%
Total	**6**	

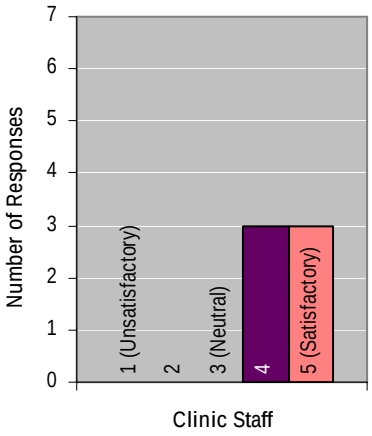


Exhibit 5-16: Clinic Staff Survey Results – Overall Satisfaction

Staff rated their satisfaction of the demonstration as positive. Half of the respondents rated their satisfaction a 5 and other half rated it a 4.

Clinic Flow

Clinic staff were asked about the effect EBT had on the clinic. When asked about waiting times, the majority felt that waiting times remained the same or were somewhat improved although some felt there were longer waiting times. Comments provided by staff indicated that there were some areas where WIC EBT slowed the process down, but these were mainly associated with the initial conversion of clients to EBT where additional time was needed for training.

Were waiting times affected by the implementation of WIC EBT? Please rate waiting times in the clinic during the EBT demonstration as compared to waiting times prior to the demonstration.		
1 (Longer waiting times)	**2**	**28.57%**
2	1	14.29%
3 (Same waiting times)	2	28.57%
4	2	28.57%
5 (Shorter waiting times)	0	0.00%
Total	**7**	

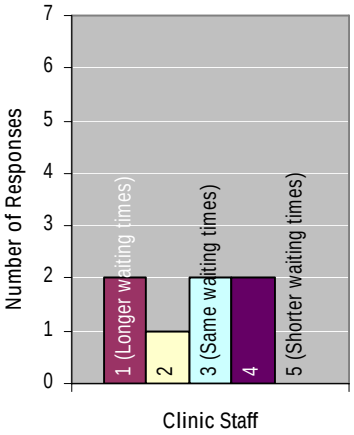


Exhibit 5-17: Clinic Staff Survey Results – Clinic Flow

Clinic staff were then asked open-ended question about the effect of the demonstration on the clinic flow. The general consensus was that it did improve clinic flow, but that there were some initial issues getting started. Responses included the following:

- Education took a fair amount of time, impacting clinic flow. We should have trained a bigger group of employees initially. The problem decreased with time.
- Training clients on the EBT system slowed things down in the early months. This was especially true since we only had a few staff members trained on EBT at the start.
- For the most part it was faster, but there were occasional issues when EBT was 'down' or cards needed to be swiped numerous times, however I still think it is better than checks.

Client Difficulties

Clinic staff were asked if they were aware of any difficulties with clients ability to get the prescribed foods or using all of their benefits during the month. Problems with scanning eggs, issues with the WIC EBT equipment in the stores and long wait times were cited as difficulties. Responses included the following:

- There were problems getting eggs due to the cardboard cartons.
- A few people didn't get their foods because they didn't realize we had reloaded their cards w/new benefits. One person didn't realize that the benefits disappeared at the end of the 30 day period.
- System outages, foods sometimes denied.
- Clients complained about the long wait in the store and also the fact that they had to go to different lines to use WIC benefits.

- At the end of the demonstration clients were stating that they were not aware of an ending date on the benefits, so they did not receive all of the food.
- There were numerous complaints about not being able to get certain authorized foods.

Although participation was limited to certain client types, some non-English speaking client did participate in the demonstration. Clinic staff were asked if they noticed any issues or barriers related to language. They provided the following comments:

- We avoided giving EBT benefits to those with minimal English skills. The few who did get EBT (after receiving the letter and requesting to participate) did have some shopping issues. In the future they would need a shopping list in native language or with pictures.
- We limited participation of clients with limited English skills. One ESL client who had received the letter and so wanted to participate did have problems in that she picked a few incorrect food items.
- It was difficult to explain why they could not participate at this time.

Suggestions for Training/Reference Material Improvements

Clinic staff were asked if they had any suggestions for other types of training/reference material for either clients or staff that would be useful. Most did not respond to this question. The following comments and suggestions were made.

- I think the materials were excellent.
- Maybe we needed stronger wording on printing the shopping list [balance] at each store visit, but many people just saved their receipts from the last trip, which had a balance listed.
- The entire clinic should be trained prior to implementation. First liners that receive state training which was very good. As other staff started issuing benefits later in the project, not all training was passed on to them and the clients suffered.

Comparison to Checks

Clinic staff were asked what they noticed as the major differences between WIC EBT and check issuance in clinic operations. Staff pointed out the advantages to clients such as no store to choose from and no lost benefits. The clinic staff liked being able to load benefits remotely rather than requiring the client to visit the clinic to pick up checks. They also liked being able to correct problems after the client had left the office.

Some issues cited by the staff were associated with the clinic system. The initial set up in the clinic separated WIC EBT clients into a separate database (or site) from the rest of the clinic participants. It became confusing and cumbersome to switch between sites and all clients in the clinic were later returned to one site.

Another issue was the need to restart the WIC EBT server on a daily basis. A problem was identified in the EBT communication software connecting to the EBT Host that required the daily restart otherwise it might crash at some point during the day. The resolution to this issue is still pending and would clearly need to be resolved before a future rollout.

Client Questions

Clinic staff were asked what were the most commonly asked questions received from clients. Many wanted to know when the system would go statewide or if it would continue after the demonstration period. Others wanted to know if someone else such as a husband, boyfriend or mother could use the card.

Disadvantages of the System

Clinic staff were asked what they though were the 3 biggest disadvantages of EBT. Many cited retail transaction times as an issue. Some also felt that cashiers were not well trained and some had bad attitudes. Clinic staff also suggested that WIC EBT be integrated with the stores' cash register systems to improve client shopping experiences.

The limitations of the demonstration such as the limited number of stores, limiting clients to English speakers, and the fact that WIC EBT clients were limited to certain lanes were reported to be disadvantages. One respondent felt that WIC EBT added more work to the clerks because benefits needed to be loaded to the card every month. This was also a limitation of the demonstration. In a larger rollout, CIMS would likely be enhanced to support multi-month issuance via EBT.

Advantages of the System

Clinic staff were asked what they though were the 3 biggest advantages of EBT. The following benefits were cited:

- Benefits can be loaded to the card remotely if necessary.
- Card can be shared between adults in family, thus facilitating shopping for busy families.
- Families can pick up just the amount of food that they need when they need it, rather than having shopping frequency and food amounts dictated by the State.
- No more lost checks. If your card is lost your benefits are not.
- More anonymity at store.

- Less traffic at the WIC office
- More issuance by phone.
- Choice of stores.
- Ease of issuance.

Additional Comments

Clinic staff were asked to provide any additional comments that were not already addressed in the survey. Those providing additional comments wanted to share that they enjoyed the experience, which they felt was good for most people. One staff member asked when the system would be going statewide. Additional comments included the following

- As a clinic, I believe we enjoyed EBT, even with the glitches. It would be nice to be able to issue 2 to 3 months benefits at a time. Having to call the clients each month was a hassle. We would love to resume the program as long as the retailers integrate WIC EBT and transaction speeds improve. More training should be provided for checkers and clinic staff.
- I think this will be a big time advantage and will help the clients as well providing that problems at the store are worked out such as integrating the cash registers to speed up the process.

5.3. Clinic Staff Focus Group

As a follow up to the survey, MAXIMUS met with the clinic staff that had been involved in the EBT processes in the clinic to get their feedback on how EBT worked in the clinic. The interview was relatively informal, held over the clinic's lunch hour. Five staff participated and the discussion covered a range of topics following up on information gathered or not specifically asked in the survey. Feedback was constructive and provided additional insight into the clinic experience as well as client experiences.

Specific Questions

A list of questions was provided to the interviewers as guide; however, some were repeated from the survey and others were not answered by the clinic staff. Time constraints also limited the discussion to informal feedback. Specific questions to which staff provided responses are listed below:

Are you aware of any clients who decided to return to checks? What reason(s) did they cite for returning to checks?

Yes. One client said that staff at one of the stores was rude and it took too long. Another reported that [she thought] it took more time at that store.

Did you ever use the SVS Card Management System (CMS) – This is a separate program for WIC EBT functions that were not added to CIMS. It would have been used for PIN changes. Did you encounter any problems with CMS? If so please, describe.

It was indicated the CMS was used for PIN changes and no issues were encountered.

Did you notice if clients had difficulties with the card reader/PIN selection terminal? If so, please describe.

They thought it was easy for clients. Having Quest card (Food Stamps/cash EBT card) experience helped.

Were there any particular issues or problems that you encountered regularly in the process of card issuance?

There were issues because WIC EBT clients were set up in a separate clinic database, but it still worked if they forgot to change the site.

General Comments

The clinic staff provided additional comments about the demonstration that were not addressed in the interview questions. They have been organized in topics below.

Clients and WIC EBT

Clinic staff stated that it would be nice to use for all participants and that they will be disappointed if it ends. They felt that the card had positive benefits to clients including reducing stigma. It was also pointed out that although most clients liked it, some got confused and thought it took too long at the store. One staff member felt that more clients should have been able to participate in the WIC EBT demonstration.

System Issues

It was also noted that CIMS was down for a week (not related to EBT) during the demonstration affecting all issuance. It had been difficult to recover. In addition, having to reboot the clinic server on a daily basis was a bother. An issue with connection speed in the clinic was reported by the clinic staff, which had not been identified previously to the project team. Staff also noted that it sometimes took several tries when swiping the card.

The initial use of a separate database to separate WIC EBT clients from the other clinic clients made it more difficult to manage clients in the system. This was later addressed by combining all clients into one database.

Retail Issues

Clinic staff reported that some stores were better than others at working with the WIC EBT system and cardholders. They said they felt it would be better if the WIC EBT terminals were on a high-speed connection rather than dial-up or that that it be integrated into the cash register system. Clinic staff also reported that cashiers did not know what their errors were or how to fix them and that they had issues identifying unauthorized foods or when there was insufficient balance left on card.

Customer Service

The clinic staff was disappointed in the support provided by the customer service line. They felt that agents had limited understanding to answer questions. In one example, a client called the customer service line to find out the date benefits would be available and was referred back to clinic. The clinic staff was confused as to why they could not release that information when it is available on the host. One staff member felt that agents seemed confused and were only really good at deactivating cards.

6. WASHINGTON STATE FEEDBACK

6.1. Summary of Findings

Washington's experience with the demonstration was positive. The State took away from the project the experience of implementing a WIC EBT system along with the understanding of what is needed for the system to be successful in their state. It was a valuable experience that provided a learning opportunity for the State in hands-on operation of a WIC EBT system.

Through out the demonstration many lessons were learned. These lessons included:

- The importance of being part of the system design from the beginning. Washington came into the project after the design, for the most part, was established because of the nature and schedule of the demonstration project. The approved design had focused on the POS software with limited consideration of clinic integration. In a few cases the approved design did not match Washington WIC operations. Some system changes were able to be made to accommodate the State, but in some instances the State had to work with the system as designed. For the State this meant work-arounds, limitations to the types of clients eligible to participate in the demonstration, or operational changes.
- The national food category/subcategory assignments did not always work with Washington food packages. In some cases, the specific category/subcategory assignments could not accommodate the flexibility or choice that Washington provides to their clients that enables them to select between different foods prescribed in a food package (i.e., choice between infant cereal or regular cereal).
- The amount of effort involved in retail and UPC management was much higher than expected. Significant time was spent collecting UPCs and price information for setting up the UPC database and not-to-exceed amounts. Once the system was operational, more time than expected was spent maintaining the database.
- The State's benefit issuance methodology can cause some members of a household to not be in synch with their benefit period. This is not an issue with checks because each check is printed with specific begin and end use dates. In EBT benefits are commingled in the EBT account and the current receipt format did not accommodate the printing of benefit start and end dates.

6.2. Washington State Summary

Washington WIC's commitment to FNS was to provide the EBT Demonstration with a continuous supply of 300 WIC participants for six months. To be successful, Washington determined it was critical to ensure EBT did not disrupt the clinic's flow of business. Marybridge clinic in Tacoma generously volunteered to partner with the State for this project. Marybridge is one of the State's busiest clinics and would continue to issue checks while converting approximately 10% of its caseload to EBT. Simple, quick and reliable issuance was essential for EBT success.

Overall, Washington was very satisfied with the results. The State believes the project partners successfully met their commitment to FNS and to WIC clients. The caseload reached 300 households with 500 participants at the end of the second month and remained at that level through the end of the project. According to the surveys described earlier, Marybridge staff's satisfaction with the EBT system ranged from satisfied to very satisfied. Washington WIC's survey of WIC clients after two months reported 95% satisfaction with the clinic process as they felt very prepared to use their EBT benefits when they left the clinic.

Washington attributes the success to three factors:

- The impact to clinic staff was minimized since few visible changes to the State's Client Information Management System's (CIMS) user interface were required;
- FNS' contractor, MAXIMUS, prepared and conducted an exceptionally thorough acceptance test prior to deployment,; and
- FNS' contractor, SVS, provided reliable software and operational support with minimal service interruptions.

Integrating EBT into Washington's WIC Certification System (CIMS)

Washington WIC's Client Information Management System (CIMS) is a WIC certification and client tracking system for WIC clinics. CIMS was implemented six years ago and presently supports more than 160 clinics statewide.

CIMS is a Microsoft Windows client server application built with Sybase's Powerbuilder using Sybase's SQL Anywhere database. Clinic databases are located at the clinics, but maintained by the State staff. Local databases are synchronized daily into the central, State WIC database where statewide reporting, data backup and disaster recovery services are provided.

FNS' contractor, Stored Value Systems (SVS), offered Washington a "ready-to-go" EBT software solution for the clinic. It would have enabled the State to operate a fully functional EBT service without changing its CIMS software. The "ready-to-go" solution, however, was stand-beside

software, not integrated with CIMS, which would require staff to key enter all client and benefit data. This was not necessarily an ideal solution for the clinic.

Washington WIC evaluated the option of using the stand-beside clinic software and determined that an integrated solution was essential. An integrated solution would enable clinic staff to enter household and benefit data once into a single system and avoid the complexities of maintaining data in both CIMS and SVS systems. Integration also avoided data integrity problems that typically occur when data is redundantly entered into separate computer systems.

Washington joined the project partnership after all EBT software specifications were developed by FNS' contractors. Using those specifications, Washington WIC staff designed and developed changes to its CIMS system. With a few notable exceptions, the design was easily integrated into CIMS and the resulting software proved reliable and functional throughout demonstration period.

CIMS integration addressed four functions:

- Food package and category management
- Benefit issuance and management
- EBT card issuance
- Participant and household management

Food Packages and Categories

The EBT design required Washington to incorporate FNS' standard food categories into CIMS. To do so, food categories, subcategories and quantities needed to be assigned to each of Washington's Food Packages.

In Washington, after WIC nutritionists certify applicants to be eligible for WIC, they assign an appropriate CIMS food package. Each food package consists of a predefined list of generic food items and quantities. One package might contain for example three gallons of whole milk, two pounds of cheese, one dozen eggs, etc. Washington's generic food items differed slightly from FNS' standard food categories, but were easily adapted. Each CIMS food item was assigned to one of FNS' food category/sub-category with only a couple of exceptions.

Some Washington food packages were designed to enable clients, when shopping, to select among foods that were, as it turned out, in two different FNS food categories. For example, the shopper is allowed to choose between infant (category 11) and regular cereal (category 5). Because of the category limitations of the FNS food categories this flexibility could not be accommodated. Another Washington package allows the shopper to choose between Pediasure and Pediasure with fiber. For the purposes of the demonstration, these formulas were reassigned to

the same category and subcategory which allowed clients the option between the two, but ideally each would be assigned a unique subcategory.

Washington considered developing a separate food package for each variation and train clinic staff to understand that difference. However, that solution would still require the shopper to commit to purchase one product or the other during certification and would not have provided the flexibility to purchase some of each.

Uniform Product Codes (UPC)

The EBT system approves purchases according to UPC code. UPCs change how redemption and food cost information is maintained compared to check systems. Under a paper checks system, one price was maintained for each retailer for each simple food item such as "whole milk." In EBT, that simple food item database expands to include information about each and every manufacturer's WIC-approved products.

This was Washington's first experience with the manufacturer-, package- and price-specific detail required for UPCs. So, for the project, Washington staff created and maintained a list of its WIC-approved food products for each of its three participating retailers. Note that Washington CIMS does not currently use vendor peer grouping, so food cost records were maintained for each store.

UPC data was maintained on and for the SVS' EBT Host system. SVS provided the UPC collection software for creating the initial database and for maintaining new codes and prices during the operational phase. To create the initial database, some of the stores provided Washington with a list of candidate WIC UPCs. The lists proved to be of limited usefulness and State staff, using software and scanner provided by SVS, visited each store to manually construct a database of nearly 750 products.

Accuracy and completeness was essential. Once the demonstration started, missing and incorrectly coded UPCs would most likely be discovered by clients during checkout which would lengthen the purchase time and could result in a denied benefit. Less than 20 errant UPC codes were discovered once production began. Most of these errors were introduced by a software problem discovered in the UPC collection software and a minor issue in the process used to load the data into the host. Consequently, most of these issues were identified and corrected before they affected any clients.

Staff invested approximately 150 hours creating and validating the UPC database. Washington's initial UPC database was fully verified and validated for completeness and accuracy. This was done by staff returning to the stores to recheck the product shelves. They also visual reviewed the captured data against their WIC lists.

Staff had to revisit stores and recreate the database several times due to the inadequate and undocumented software. Improved UPC collection software and documentation will greatly simplify this data capture task in the future.

UPC and Price Maintenance

During the demonstration, State staff continued to update the database with new UPCs and prices. Since it was such a small project, Washington asked store staff to fax changes to the State using an especially designed UPC Change Request (UCR) form. Washington anticipated that the least intrusive procedure for stores would be:

1. For checkers to note any food products that the EBT system rejected during checkout and that they believed were legitimate WIC foods. Store staff could follow-up with research before faxing change requests to the State.
2. For store staff who manage the daily EBT closing: Research food products that the EBT terminal reported as exceeding the maximum WIC-approved price. Fax price changes to the State when appropriate.

No UCR forms were submitted by stores during the demonstration. Price changes and missing products, when they were discovered, were mentioned to the MAXIMUS Retail Manager. While the Retail Manager encouraged them to complete a UCR, in all cases the Retail Manager eventually reported the information to the State herself. The Retail Manager did discover later in the project that the "over maximum price" report from the EBT terminal's daily closing process was not working and that this might have contributed to a lack of reported UCRs (see Section 4: Retailer Feedback for discussion). Probably because of the small project size, lack of store reporting did not become critical.

The EBT system tracked denied UPCs for reporting purposes, but only tracked UPCs that were already in its database. Perhaps this limitation should change in the future. Anecdotally, Washington learned that EBT clients stopped shopping for small packages of WIC-approved string cheese. This product was not in the database and so was never tracked by the system. Unfortunately, it was also not reported by stores to the State. The State anticipates formalizing the store reporting process in the future by ensuring each store designates one person to be responsible for UPC and price reporting.

Maximum "Not to Exceed" (NTE) Price Limit

Maintaining accurate and timely product prices and "not-to-exceed" maximum prices are more important to EBT processing than to paper checks.

The State maintains a maximum price for each WIC-approved food item. All retailer purchase requests are automatically paid at or below this maximum. Since food prices are volatile and checks must be negotiable for one month, the State adds a cushion amount to the maximum price it will pay that it refers to as the "not-to-exceed" (NTE) price.

The NTE algorithm affects checks differently than EBT. With paper checks, a single NTE value is calculated that considers the value of all of the check's food items. Under this method, the check can absorb a significant increase in one or two items without exceeding the check's NTE. With EBT on the other hand, each food item is individually price-checked and authorized. A significant increase in one food item's price could exceed the set item NTE and will reduce the retailer's anticipated payment.

Improved accountability from EBT benefits the State with more visibility to and control over food costs, but it also means every food item's price must be more carefully maintained. To balance the risks and rewards, State staff might need to monitor food prices more frequently and might want to refine the methods it uses to calculate NTE prices.

Unlike paper checks, EBT purchases that exceeded NTE were not denied and so did not slow EBT checkout. By policy, the system automatically authorized purchases over the NTE and the store was paid the NTE price, not their requested price.

Washington encouraged stores to submit claims to recover the difference between their requested and paid prices by providing the State a copy of: a) the EBT terminal receipt and b) the cash register receipt containing the actual product price. None of the retailers submitted a reimbursement claim and seemed unaware of "over max" situations. Late in the project, after failing to receive a claim, the State prepared a report detailing all purchases that exceeded the State's NTE maximum and distributed to each store for their action.

The report shows that the "automatic authorization" policy could be fine tuned to detect and eliminate some price entry errors. For the demonstration period of five months, 72 purchased food items exceeded NTE thresholds for total of $87. A total of 9,865 items were approved during that period. The 72 items exceeding NTE thresholds only accounted for .7 percent of all items purchased. Three of the items accounted for $26 of the $87 – which suggests clerks mis-keyed prices rather than simply exceeded the NTE threshold. This occasional error can be eliminated by prompting checkers to confirm prices whenever a request substantially exceeds the NTE.

Benefit Issuance and Management

95 percent of all EBT activity at the clinic concerned benefit issuance. The Clinic staff survey (see above) reported a high level of satisfaction

with the EBT system. The State was pleased with the reliability and availability of system during the demonstration. EBT was effectively available 24 hours per day, 7 days per week with only a few episodes impacting clinic operations:

- On two occasions for a couple of hours each the clinic reported a loss of service after what was discovered to be unannounced system upgrades. Both cases were due to written procedure errors. Corrections were made with no subsequent problems.
- On four occasions over three weeks, a sporadic error disconnected CIMS from the EBT Host. EBT service was lost on each occasion for between 1-4 hours. The State eventually isolated the problem to an EBT Host communication component and was able to manage around the problem until SVS could provide a fix.

Integrating EBT Benefits

Functionally, clinic staff saw three new issuance features added to its CIMS system:

- Issuance by check
- Issuance by EBT
- Balance inquiry

The figures that follow show the CIMS' Benefit Issuance screen use for issuing benefits via checks or EBT. The screen is used after a nutritionist completes a client's WIC certification or when a client returns for a subsequent month's benefits, i.e. a "check pickup" appointment. For CIMS/EBT, the clerk is offered an option to either print paper checks or to post to EBT.

Checks Option: When (1) "Checks" is selected, clinic staff must choose: (2) an issuance period, (3) a food package, the number of checks to print, (4) retail store(s) to endorse, and when (5) "Print" is selected, the benefits are posted and checks printed.

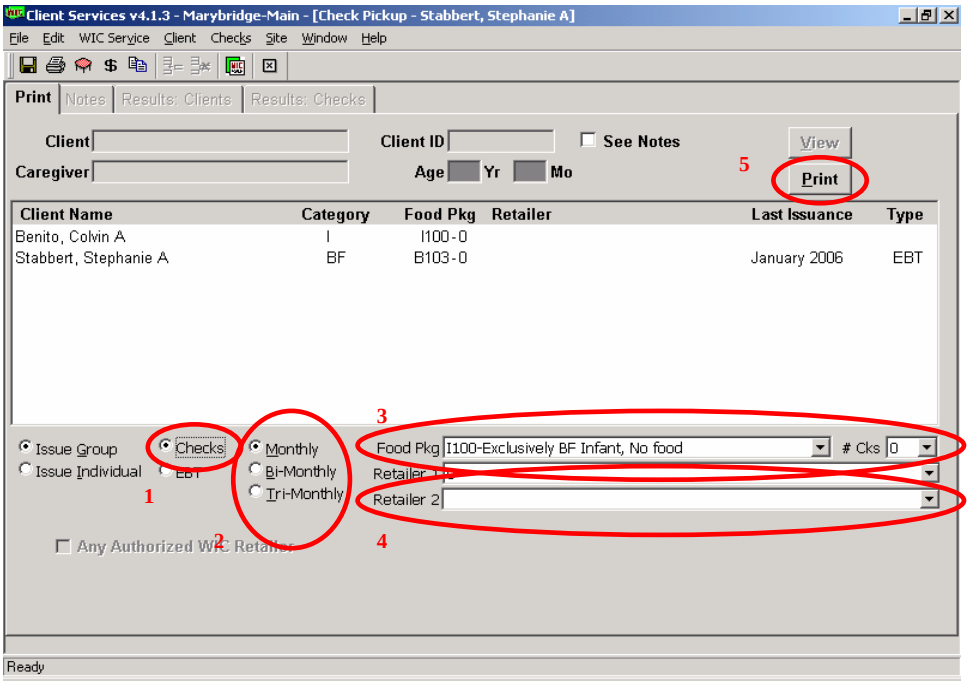


Exhibit 6-1: CIMS Benefit Issuance Screen Check Option

EBT Option: When (1) "EBT" is selected, the clerk may only choose a food package (2). And when (3) Issue is selected, the system translates the food package's food items into FNS-standard category/sub-categories, opens a communication path to the EBT Host computer, and sends the food data together with participant name and demographics, and household affiliation. The EBT Host posts the issuance by creating a household and participant record if necessary, and rolling the benefits into a household's list of benefits.

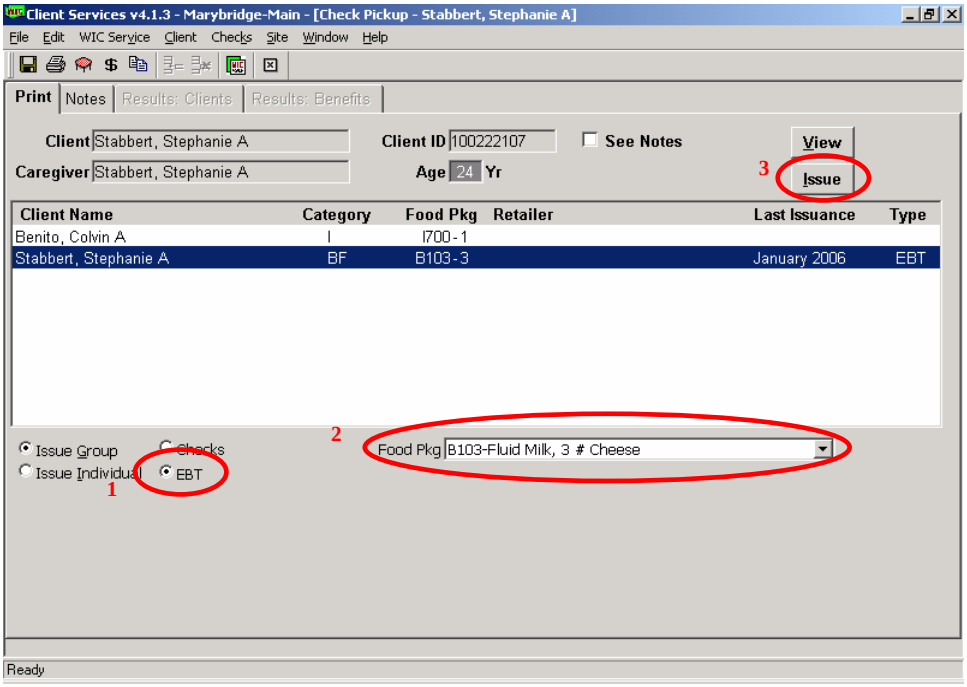


Exhibit 6-2: CIMS Benefit Issuance Screen EBT Option

EBT issuance is simpler than checks since benefits can be purchased at any of the authorized retailers and, as explained earlier, the project chose to issue only one month's benefits at a time.

Another function added to CIMS was the ability to see the clients balance following an issuance or access the client's balance through a balance inquiry function. The follow screen displays the results of an EBT benefit issuance.

Balance Inquiry: The upper right corner of the screen (1) lists the highlighted client's prescribed food items. These descriptions are from WA's "food package" table as they would be printed on paper checks. The box at the bottom of the screen (2) displays the household's balance from the EBT Host with descriptions from FNS' standard EBT food category table. Clients typically also received a "shopping list" containing similar information.

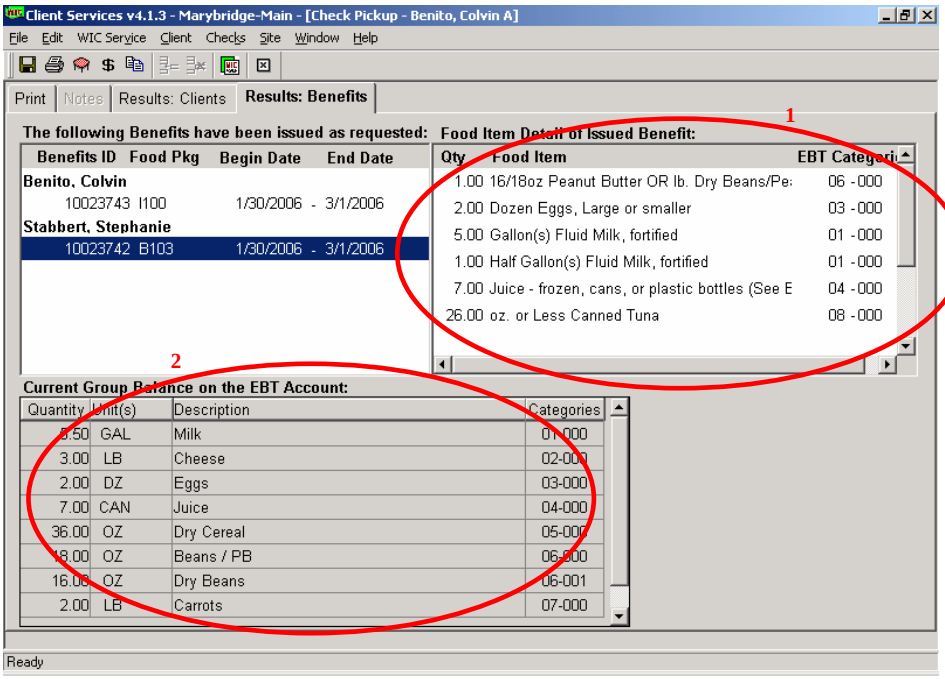


Exhibit 6-3: CIMS Balance Inquiry

Database Integrity

WIC household membership and benefit data is on both CIMS and the EBT Host and so both databases should always match. To test their integrity, Washington developed a report that compared benefit data posted to CIMS' against benefits posted to the EBT Host. Some discrepancies were found. Washington's developer was unable to conclusively identify the cause.

Washington was encountering its own irresolvable CIMS data replication problems during the project between the Marybridge clinic's and the State's databases (see synchronization above). Though not EBT related, the developer believed those problems accounted for the EBT integrity report's discrepancies. With the continued absence of any problems or benefits losses from the clinic or the associated participants, the discrepancy issue never became a concern. After the project concluded, the clinic was returned to the normal CIMS system and the database replication problems ceased.

Bi-and Tri-Monthly Benefits

CIMS offers clinics an option to issue up to three months paper checks. Washington limited CIMS/EBT to issuing one month of EBT at a time:

- CIMS/EBT could not readily support clients transferring to another household or to another clinic (see Participant Transfer below). Recovering multiple future months' benefits would further complicate the clinic's special EBT transfer procedures.
- Monthly contact became an opportunity for the clinic to talk to clients about their EBT experience. Staff instructed clients to call the clinic each month. Clients answered some questions while staff posted the next month's benefits to the EBT Host. No in-clinic visit was required.

EBT Card Issuance

At the conclusion of a benefit issuance, CIMS/EBT displays a series of prompts to assign an EBT card. The clerk logs a card out of the new card inventory and hands it to the client. The client scans the card into an EBT card reader (Verifone 3750) and enters a personal identification number (PIN). The system associates the card to the household and posts it to the EBT Host.

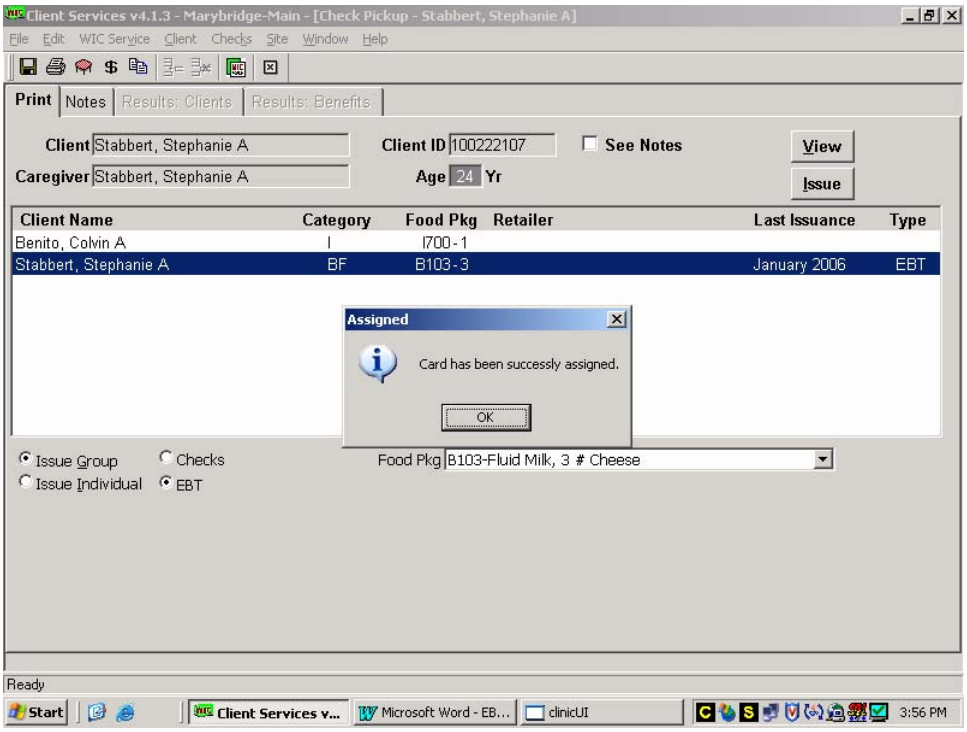


Exhibit 6-4: CIMS Card Issuance Screen

A similar dialog is available from a menu selection that can be used to re-issue a card or to issue a second card to a household.

Participant and Household Management

As part of its "ready to go" EBT solution, SVS offered screens for entering household and participant information. All of this information was already available in CIMS' database. With Benefit Issuance integrated into CIMS, CIMS/EBT added that data to the benefit issuance data and forwarded to the EBT Host as part of the Benefit Issuance event – a much simpler and efficient process for clinic staff.

Participant Transfer

CIMS/EBT could not completely support transferring EBT participants to other households or clinics. As a result, during this demonstration, the clinic avoided recruiting participants such as foster children who had a high likelihood to transfer. Two software design issues complicated the function:

"Card Assignment" Issue

One EBT card can be used to purchase benefits for all of the participants in a household. Normally only one card is assigned to a household and the design required the card to be assigned to one of the participants. A problem occurs when a card-holding participant is transferred to another household. The household loses its only active card. The original EBT system design did not provide a way to prevent this from happening nor notify the State's CIMS system when it did.

A design change enabled non-benefit-receiving "cardholder" participants to be added to the EBT Host database. Washington could not implement it in time for this project.

"Partial Benefit Balances" Issue

WIC participants are individually certified for and issued WIC benefits. When benefits are posted into the EBT Host, the EBT Host rolls them into the household's balance. Individual balances are not maintained on the EBT Host. When a purchase is made against the benefits, the balances are decremented without accounting to individual balances.

When a participant transfers to another household or clinic, it is desirable to transfer remaining benefits into either the new household, into paper checks, or as a balance notation on a paper transfer card. Washington could not accommodate that for EBT in two circumstances:

- CIMS, as it is presently designed, requires a participant's entire monthly benefit package of food items to be reinstated. If only part of a food package remains in the household's EBT balance, CIMS' cannot recover benefits from the EBT Host.

- When enough benefits are available to be recovered, removing an entire package of benefits from a household might improperly disadvantage remaining household members by disproportionately removing food from the family's balance.

Washington's clinic tried to avoid recruiting clients, such as foster children, who were more likely to transfer. Procedurally, staff were instructed to advise the client to purchase their remaining benefits with the card. Staff were also instructed to investigate whether the participant happened to be the household's cardholder since SVS' system automatically deactivated the card upon transfer – disabling the household's access to benefits. Staff was provided special instructions to monitor for this situation. No known incidents were reported during the demonstration.

Revising Prescriptions

Washington's inability to recover food packages from the EBT Host became a problem for babies whose prescribed formula turned out to be unacceptable. Typically formula is purchased and consumed before a problem such as lactose intolerance is discovered. Since part of the package was purchased and used, Washington's system was not able to recover it as a complete food package and then reissue a preferred formula.

EBT Receipt and "Overlapping Benefit Periods"


Safeway # 1594
707 S. 56th Street
Tacoma, WA 98408
06/18/2005 10:55:06am
SITE:WA.000006 LANE:03
USER:EWIC1 TRACE #:105705
Purchase
CARD: ************4978
Eggs 2.00 DZ
Juice 3.00 CAN
Dry Cereal 36.00 OZ
Beans / PB 18.00 OZ
Evap Milk 26.00 CAN
1.00 CAN Juice
028700109427 1 @ $ 2.49 $ 2.49
15.00 OZ Dry Cereal
016000666108 1 @ $ 3.69 $ 3.69
Eggs 2.00 DZ
Juice 2.00 CAN
Dry Cereal 21.00 OZ
Beans / PB 18.00 OZ
Evap Milk 26.00 CAN
REF:516800000070
Number of WIC Items: 2
WIC TOTAL: $ 6.18
COUPON: $ 0.00-
WIC NET: $ 6.18

Exhibit 6-5: Sample Receipt

The proposed EBT "store receipt" design was insufficient to fully support Washington State's benefit issuance policies. By design, an EBT receipt lists purchase details as well as the client's updated shopping list. The shopping list portion presumed that the listed benefits would be available through the end of the calendar month -- no expiration date was printed. This was a problem in Washington.

Washington differs from most other States whose policy is to issue benefits for a calendar month effective the first day through the last of a month. They may also pro-rate a *partial* month's benefits to expire at the end of the month.

Washington participants receive benefits for a period of 30-31 days effective the day issued. With Washington's policy, clients must remember their EBT benefit expiration date to use a receipt-based shopping list. This was insignificant except for those households in which participants, such as newborns, were added along the way on different dates. In these households, each participant's benefits expire on a different day of the month. These "*overlapping benefit periods"* mean a shopping list would be accurate only until the next-occurring expiration date. After that date, the client would need to either maintain a

handwritten list or obtain a balance from the clinic or SVS' Help line just prior to shopping.

To remedy the problem, Washington considered adopting "calendar month" issuance rules and pro-rating benefits, but determined such a change would create major changes to clinic procedures and would significantly increase the State's EBT software development costs.

Washington also explored changing the receipt. Washington's request to redesign the receipt to support one or more "expiration dates" was not accepted because expiration dates were not compliant with the X9.93 messaging standards.

FNS resolved the problem when it agreed to add one more EBT terminal at each store dedicated to printing shopping lists. Clients were instructed to print the list each time they visited the store.

As described earlier in the survey analysis, most shoppers failed to regularly print the list. Store management cited this as a common cause of purchase denials during checkout that led to prolonged checkout times.

EBT Redemption Rates

As the Project began, WIC management was interested in the impact EBT might have on food redemption rates. Other States had reported lower than expected redemptions following the introduction of EBT. With the added information available with EBT, Washington tracked its rate for the first four months as follows:

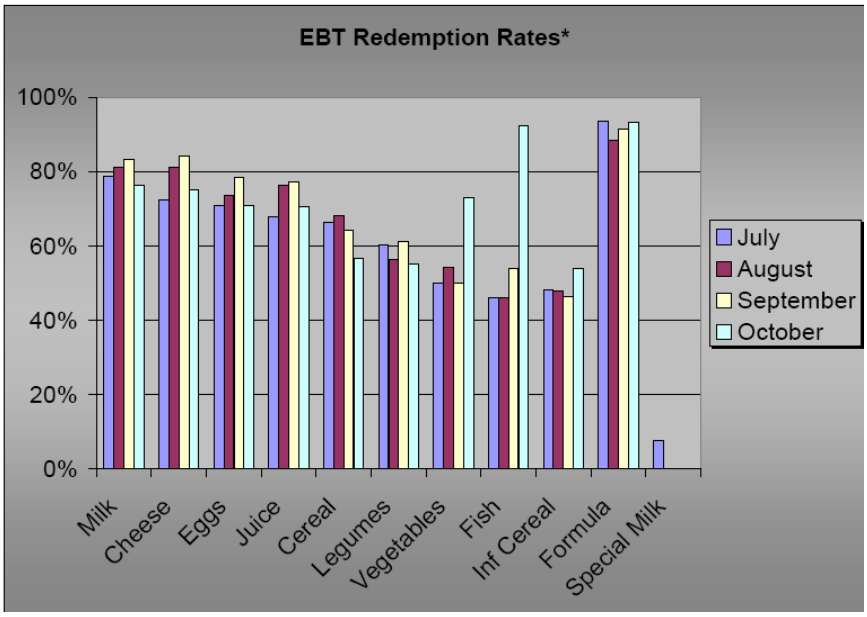


Exhibit 6-6 EBT Redemption Rates
Redemption = Issuance minus following month's expungements
** Issuances began June 22, 2005 and ended October 17, 2005. Redemptions continued through Nov 17. The EBT system "expunged" benefits after they expired, usually one month from issuance. Data Source: SVS_ONLR800A Report*

The data collected indicates that clients were not redeeming all benefits that were issued under EBT, particularly for some food categories such as Infant Cereal and Special Milk. It is not possible to compare redemption patterns under EBT with those occurring under the paper system, since redemption of individual foods are not recorded on paper vouchers.

6.3. Survey Responses

State staff involved in WIC EBT operations during the demonstration were surveyed about their experience. The number of staff that participated in the demonstration was relatively small. The following table identifies the number and types of staff that responded to the survey which makes up the majority of staff that supported WIC EBT operations.

Staff Areas of Responsibility		
Responsibility	***Number of Responses***	***Percentage of Responses***
Help Desk:	4	44%
Retail Management:	3	33%
IT Staff:	2	22%
Total:	**9**	

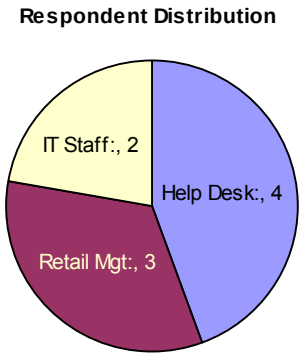


Exhibit 6-7: State Staff Survey Results – Areas of Responsibility

Because of the limited number of responses to some questions, it is not possible to have a significant analysis of the data. Therefore in several parts of this section, survey results are simply reported without the same level analysis that was performed in the other sections of this document.

All Staff Multiple Choice Questions

All respondents were asked to answer a set of questions to get their feedback on some general topics. The following provides the survey results for these questions.

WIC EBT tasks were performed in addition to other regular tasks and responsibilities. Staff were asked how many hours per week they spent performing WIC EBT activities. Responses have been totaled and provided by staff type below. The majority of time was spend by retail management staff.

1. How many hours per week on average did you spend on WIC EBT related tasks?	
Responsibility	***Total Hours Reported***
Help Desk:	5
Retail Management:	10
IT Staff:	6
Total:	**20**

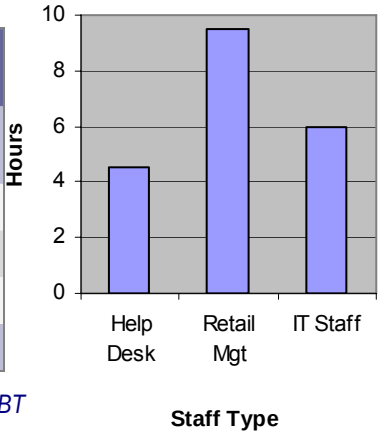


Exhibit 6-8: State Staff Survey Results – Time Spent on EBT

State staff were asked to describe their experience with the EBT demonstration in a number of areas. Respondents could rate their experience on a scale of 1 to 5 or "does not apply" (some staff had limited involvement in some aspects of WIC EBT operations). The rating scale was as follows:

1 Unsatisfactory ← 2 → 3 Neutral ← 4 → 5 Satisfactory

Responses to each question have been averaged by each staff type. The overall average has also been provided. In the majority of cases, the average was neutral or better.

2. How would you describe your experience during the EBT demonstration related to: *Rating Range: Unsatisfactory (1) > Neutral (3) > Satisfactory (5)* *Averages by staff type are listed*					
Questions	***Help Desk***	***Retail Mgmt***	***IT Staff***	***Overall Average***	***Respondent Count***
a. Support you received from the EBT Customer Service Line (for EBT issues)?	3.0	3.0	4.0	3.3	6
b. Amount of training you received on the EBT system?	1.8	3.5	3.0	2.5	8
c. Quality of training you received on the EBT system?	2.3	3.5	4.0	3.0	8
d. Amount of reference materials you received for the EBT system?	2.3	2.0	2.5	2.2	8
e. Quality of reference materials you received for the EBT system?	2.5	2.0	3.0	2.4	8
f. EBT system functions, in relation to your specific job tasks?	3.0	3.0	2.5	2.9	9
g. Your overall feelings about the EBT demonstration?	2.3	4.0	4.0	3.2	9

Exhibit 6-9: State Staff Survey Results – EBT Experience (1)

A graphic depicting the results of these questions had been provided in the following exhibit.

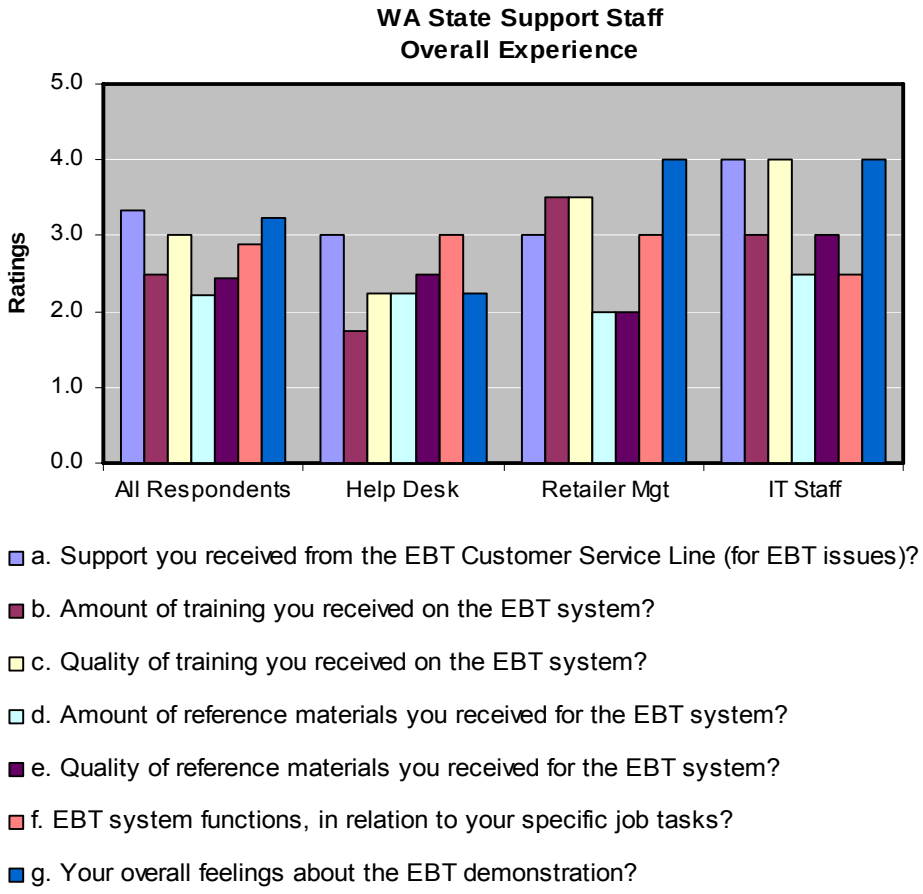


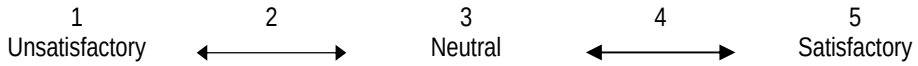
Exhibit 6-10: State Staff Survey Results – EBT Experience (2)

Staff were asked how often they used the Host User Interface (HUI) which provided access to the host database. One of the IT staff used the HUI the most frequently, likely in support of operations and troubleshooting. The help desk had the most staff to access the HUI although some more frequently than others.

3. How often did you use the Host User Interface (HUI) per week?				
	Help Desk	***Retail Mgmt***	***IT Staff***	***Total***
Less than 1:	2	2		4
1 – 3 times:	2		1	3
4 – 6 times:		1		1
7 – 9 times:				0
10 or more:			1	1

Exhibit 6-11: State Staff Survey Results – HUI Usage

Staff were asked to rate the usefulness of the HUI for their job tasks using the following rating scale:

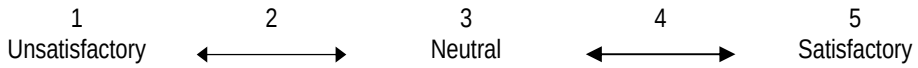


Responses have been averaged by staff type and all staff overall.

4. How would you rate the usefulness of the HUI for your job tasks?	
Responsibility	***Average Rating***
Help Desk	4.0
Retail Management:	4.0
IT Staff:	3.5
Overall	3.8
Respondent Count:	**6**

Exhibit 6-12: State Staff Survey Results – HUI Usefulness

Staff were asked to rate the usefulness of system reports and data for their job tasks using the following rating scale:



Responses have been averaged by staff type and all staff overall.

5. How would you rate the usefulness of the system reports and data for your job tasks?	
Responsibility	***Average Rating***
Help Desk	3.0
Retail Management:	4.0
IT Staff:	3.0
Overall	3.6
Respondent Count:	**5**

Exhibit 6-13: State Staff Survey Results – System Reports and Data Usefulness

All Staff Open-Ended Questions

Staff were ask a series of open-ended questions to gather additional feedback about their experience with the demonstration. These questions and their answers have been provided on the following pages.

6a. Please indicate new tasks associated with EBT that you did not have before the demonstration.

- **Help Desk:** It caused problems on our Server constantly
- **Retail Management:** (1) Additional retailer maintenance. (2) Collecting UPC codes was very time intensive and there were a lot of quirks in the software we received. Finally had to resort to a work-around. It was very frustrating because I didn't want to give up, and I found it just would not work well.
- **IT Staff:** Enhanced my knowledge and ability to work with VPN technologies

6b. Do you have and suggestions or recommendations for improving the HUI or system reports/data?

- **Help Desk**: No response
- **Retail Management:** (1) There should be clear information about how data is entered. It was confusing, and I had to figure out what was going on myself. I would rather have been told and not have spend as much time trying to work out the kinks. (2) A report of UPCs by retailer
- **IT Staff:** Navigation in the menus needs to be clearer and easier

6c. What do you think are the 3 biggest disadvantages of EBT?

- **Help Desk**: (1) Connectivity problems to Kentucky, Additional work for store clerks, Additional work for Helpdesk. (2) Time\Hassle to process at Grocery Stores
- **Retail Management:** The way we saw it in our stores, the stand alone was not designed for the high volume stores. I did not like bundling the purchase to find out something would not go for one reason or another and had to try to figure out what was going on.
- **IT Staff:** (1) lane speed; retailer relationships, communication (network, phone, etc.) problems. (2) Supermarket training, the need for High Speed networking at locations.

6d. What do you think are the 3 biggest advantages of EBT?

- **Help Desk:** (1) Client can shop at different stores, Client can buy one item at a time, Easier to see clients shopping history. (2) Helping people with nutritional need
- **Retail Management**: (1) Hopefully we will learn from the things we saw happening and figure out how to make things work better. I would love it if it would work. (2) Flexibility to buy different quantities, Ability to go to a different store if the first one is out of stock, Less obvious that the client is shopping with WIC benefits.

- **IT Staff:** (1) Purchasing flexibility for client, full integration with retailer ECR, more detailed and accurate purchasing data. (2) Centralized data information

WIC Help Desk Staff Questions

The WIC help desk staff were asked a series of questions to gather their perspectives on the demonstration. The results of these questions have been provided below.

1. What was your help desk role for WIC EBT?		
Primary Clinic Support:	1	25.0%
Back Up Clinic Support:	3	75.0%
Total	**4**	

Exhibit 6-14: State Staff Survey Results (Help Desk) – WIC EBT Role

The number of help desk staff supporting WIC EBT was at most four of the regular WIC help desk staff. One help desk staff person was the primary contact for WIC EBT inquiries from the clinic. She fielded the majority of the calls. Other help desk staff had limited exposure to WIC EBT.

2. Did you attend WIC EBT training?		
Yes	4	100.0%
No	0	0.0%
Total	**4**	

Exhibit 6-15: State Staff Survey Results (Help Desk) – Training

Training was held for the help desk staff and all were strongly encouraged to attend. Because WIC EBT was new, it was difficult for trainers to define all of the possible scenarios that they help desk would encounter. It was anticipated that new situations would be documented throughout the demonstration to add to the training and reference materials.

3. In an average week, how many calls did you receive from the clinic related to EBT issues?		
One or less:	2	50.0%
Two or three:	0	0.0%
Four or Five:	1	25.0%
Six or more:	1	25.0%
Total	**4**	

Exhibit 6-16: State Staff Survey Results (Help Desk) – Number of Calls

Call volumes were manageable with the majority being handled by one help desk staff member. Staff indicated that the most frequent questions or issues were related to connectivity Issues, training issues (i.e., clinic staff needed help completing a WIC EBT procedure) and the system was down. The last issue was associated with the problem that required a reboot of the WIC EBT server.

5. Please indicate how many times you contacted any of the following for WIC EBT technical support:			
Respondent	WA WIC IT	SVS IT	SVS Customer Service
1	50	0	1
2	0	0	3+
3	0	0	0
4	0	0	0

Exhibit 6-17: State Staff Survey Results (Help Desk) – Technical Support (1)

Most technical support was provided by Washington WIC IT staff. The help desk and the IT staff are co-located in the same building allowing for easy access to technical staff. The Washington WIC IT staff were responsible for the development of the integrated WIC EBT functionality in CIMS and therefore would be the main point of contact for most WIC EBT issues originating from the clinic.

On occasion SVS customer service would need to be contacted to either answer a question about an account or escalate and issue to SVS IT staff.

According the results of the survey, contact with SVS customer service occurred infrequently and direct contact with SVS IT staff never occurred.

The following tables provide the help desk staff's opinion of the support they received from Washington IT Staff and SVS Customer Service.

6a. How would you rate the support you received from: Washington WIC IT Staff		
Did not use	1	33.33%
1 (Unsatisfactory)	0	0.00%
2	0	0.00%
3 (Neutral)	1	33.33%
4	1	33.33%
5 (Satisfactory)	0	0.00%
Average	**3.5**	

Exhibit 6-18: State Staff Survey Results (Help Desk) – Technical Support (2)

6b. How would you rate the support you received from: SVS Customer Service		
Did not use	0	0.00%
1 (Unsatisfactory)	1	33.33%
2	2	66.67%
3 (Neutral)	0	0.00%
4	0	0.00%
5 (Satisfactory)	0	0.00%
Average	**1.7**	

Exhibit 6-19: State Staff Survey Results (Help Desk) – Technical Support (3)

The following questions consider possible reasons for contacting the help desk.

7. Approximately how many WIC EBT calls were related to the Verifone hardware?		
Few (25% or less)	2	100.00%
Some (25% to 50%)	0	0.00%
Many (50% to 75%)	0	0.00%
Most (75% to 100%)	0	0.00%
Total	**2**	

Exhibit 6-20: State Staff Survey Results (Help Desk) – Call Reasons (1)

A Verifone POS terminal was used as part of the card issuance process. Since it was new equipment, it was expected that some of the calls would be related to the terminal. The survey, however, indicates that the help desk dealt with few calls about the terminal

8. Approximately how often were WIC EBT calls related to phone company communication lines?		
Few (25% or less)	1	50.00%
Some (25% to 50%)	0	0.00%
Many (50% to 75%)	1	50.00%
Most (75% to 100%)	0	0.00%
Total	**2**	

Exhibit 6-21: State Staff Survey Results (Help Desk) – Call Reasons (2)

Because of the nature of an online system, it was expected that some of the calls would be related to communications. According to one help desk staff, there were many calls about this topic, the other respondent indicated there were few calls, and two did not respond to this question. Therefore it is difficult to ascertain the severity of communication issues based on survey feedback.

9. Approximately how often were WIC EBT calls related to training issues?		
Few (25% or less)	0	0.00%
Some (25% to 50%)	0	0.00%
Many (50% to 75%)	2	100.00%
Most (75% to 100%)	0	0.00%
Total	**2**	

Exhibit 6-22: State Staff Survey Results (Help Desk) – Call Reasons (3)

According to this survey question as well as written responses, help desk staff felt that they received many calls related to training issues. Not all clinic staff were trained initially, just those who were expected to perform WIC EBT operations. As the demonstration progressed, most clinic staff were recruited to participate in the demonstration and therefore not all of the staff received the State provided training prior to working with WIC EBT clients and the new CIMS functions. A State trainer did provide follow-up training to clinic staff after the implementation of the demonstration. Other reasons for survey response to this question may be because the system was new, not all situations were anticipated or documented in the training materials. When they occurred, the clinic staff contacted the help desk.

10. If the EBT demonstration was to expand into a pilot project that would include multiple (4 – 8) clinics, how would you describe the staffing needs in your area?		
Need fewer staff	0	0.00%
Need the same amount of staff	2	66.67%
Need more staff	1	33.33%
Total	**3**	

Exhibit 6-23: State Staff Survey Results (Help Desk) – Staffing Future Rollouts

Based on the limited number of responses it is difficult to determine if more staff is need for the help desk for future larger rollouts of WIC EBT. Because of the site of the demonstration, it was likely not a particular burden on help desk staff and may not provide enough experience to determine staffing needs.

11. What suggestions for other types of training/reference material that would be useful do you have?

- More intense/comprehensive training on EBT Clinic issues.
- More training and better communication with SVS and whomever else is aiding in the process.

12. Please provide any additional comments you have about your experience with WIC EBT Help Desk Support.

- Often support was not available

Retailer Management Questions

Retail management staff generally felt that WIC EBT added an additional workload to their normal duties that was not anticipated. The collection of UPC and price data were noted as being particularly burdensome.

The WIC Retailer Management staff were asked a series of questions to gather their perspectives on the demonstration. The results of these questions have been provided below.

1. Approximately how many UPCs did you add to the database during the project?		
One or less	0	0.00%
Two to Five	0	0.00%
Six to Nine	1	33.33%
Ten or more	2	66.67%
Exact Number (if known)	0	0.00%
Total	**3**	

Exhibit 6-24: State Staff Survey Results (Retail Management) – UPC Collection

2. Approximately how many prices did you update during the project?		
One or less	0	0.00%
Two to Five	0	0.00%
Six to Nine	0	0.00%
Ten or more	3	100.00%
Exact Number (if known)	0	0.00%
Total	**3**	

Exhibit 6-25: State Staff Survey Results (Retail Management) – UPC Maintenance

Unfortunately, the questions above does not provide a clear picture of the effort related to the collection and maintenance of the UPC database. Staff spent numerous hours in preparation for the demonstration collecting, verifying and double-checking data. It required several visits to each of the participating retailers located at least a half hour away from the State WIC Office.

3. During an average week, how often were you contacted by a participating WIC EBT retailer or a member of the project team with a WIC EBT related request?		
One or less	3	100.00%
Two or three	0	0.00%
Three or four	0	0.00%
Five or more	0	0.00%
Total	**3**	

Exhibit 6-26: State Staff Survey Results (Retail Management) – Retailer Contact

Most retailers contacted the MAXIMUS Retail Manager about WIC EBT issues. She would notify the appropriate staff, including WIC Retail Management Staff, of any reported issues. Therefore, State staff did not receive a large volume of calls from retailers. The State should consider retailer communications for future implementations as how they would like the flow of communications to occur. Would they prefer to take on the role the MAXIMUS Retailer Manager supported in this demonstration

or would they prefer to have that function supported outside of WIC Retail Management?

4. If the EBT demonstration was to expand into a pilot project that would include multiple (4 – 8) stores, how would you describe the staffing needs in your area?		
Need fewer staff	0	0.00%
Need the same amount of staff	1	33.33%
Need more staff	2	66.67%
Total	**3**	

Exhibit 6-27: State Staff Survey Results (Retail Management) – Staffing Future Rollouts

Retail management staff for the most part, felt that more staff would be needed for a future rollout. Improvements to the UPC collection software and additional functionality to the system in the maintenance of UPCs, could limit some of the need for new staff.

5. Hours per occurrence: Approximately how much of your time, on average, was required to verify with the store and then complete each UPC update?	
Respondent	Hours
1	1
2	< 1
3	0.8

Exhibit 6-28: State Staff Survey Results (Retail Management) – Time Spent Updating UPCs

The time spent per UPC update is significant particularly if multiple UPCs are required to be updated from multiple stores. Only a handful of UPCs required updating during the demonstration mainly to adjust not-to-exceed amounts. A long demonstration, pilot or project would require regular updates to the database to ensure that not-to-exceed amounts were appropriate.

6. Was the food category/sub-category table suitable for Washington's needs? If not, what issues did you encounter?

- Too many sub categories.

- Formulas were not up to date with sizes and names; Some were too high level and did not allow the breakdown needed; Did not allow the flexibility needed for the Special needs packages regarding client choice of cereal

7. What was the level effort required to capture store UPCs and prices. How could that process be improved?

- I don't EVEN want to go there! If the software and scanner had worked it would have been great. It is impossible to tell you how awful it was to have a scanner that needed an electrical source. We finally purchased a portable power source and carted it around with us. The software came without much instruction and the data was funky. We finally figured out hand recording was faster than what we were given.
- Huge!! The gathering and validation was a horrendous task.

8. Were there any particular issues or difficulties that you encountered related to your WIC EBT functions?

- The HUI information was not always reliable or consistent.

9. Do you have any suggestions for other types of training/reference material that would be useful?

- No responses

10. Please provide any additional comments you have about your experience with WIC EBT Retail Management and UPC Management functions.

- No responses

IT Staff Questions

Washington WIC IT staff were the main source of technical support for the State and clinic staff. The WIC IT staff were asked a series of questions to gather their perspectives on the demonstration. The results of these questions have been provided below.

1. On average how often did you have to provide WIC EBT technical support to the clinic?		
Daily	0	0.00%
2 – 3 Times/ Week	0	0.00%
Once per Week	1	50.00%
Every 2 Weeks	0	0.00%
Once per Month	1	50.00%
Total	**2**	

Exhibit 6-29: State Staff Survey Results (IT Staff) – Frequency of Technical Support

According to the survey results, requests for technical support were limited. At most they occurred weekly.

2. What is the average number of hours you spent per incident providing technical support?	
Respondent	Hours
1	4
2	1

Exhibit 6-30: State Staff Survey Results (IT Staff) – Time Spent per Incident

The respondents indicated that incidents took one to four hours. This could be significant if the staff are spending four hours per week on WIC EBT issues.

3. How would you rate the ease of diagnosing WIC EBT problems in CIMS?		
Very Difficult	0	0.00%
Difficult	0	0.00%
Neutral	1	50.00%
Easy	1	50.00%
Very Easy	0	0.00%
Total	**2**	

Exhibit 6-31: State Staff Survey Results (IT Staff) – Ease of Diagnosing WIC EBT Problems (1)

4. How would you rate the ease of diagnosing WIC EBT problems in the SVS clinic software?		
Very Difficult	0	0.00%
Difficult	1	50.00%
Neutral	1	50.00%
Easy	0	0.00%
Very Easy	0	0.00%
Total	**2**	

Exhibit 6-32: State Staff Survey Results (IT Staff) – Ease of Diagnosing WIC EBT Problems (2)

IT staff were responsible for the CIMS WIC EBT development and therefore were quite familiar with the system. Washington IS Staff was not allowed to view the SVS' EBT program code which had been integrated into CIMS to support EBT functions in the clinic. When issues needed to be resolved, coordination with SVS developers was required.

5. How would you rate SVS technical supports availability, responsiveness and effectiveness?		
1 (Not acceptable)	0	0.00%
2	0	0.00%
3 (Neutral)	0	0.00%
4	2	100.00%
5 (Acceptable)	0	0.00%
Total	**2**	

Exhibit 6-33: State Staff Survey Results (IT Staff) – SVS Technical Support

The Washington WIC IT staff had a good working relationship with the SVS staff supporting the project and were able to work through most issues in timely manner.

In the following three questions, the IT staff were asked to rate the quality of specific components of the WIC EBT system.

6. How would you rate quality of WIC EBT software?		
1 (Not acceptable)	0	0.00%
2	1	50.00%
3 (Neutral)	0	0.00%
4	1	50.00%
5 (Acceptable)	0	0.00%
Total	**2**	

Exhibit 6-34: State Staff Survey Results (IT Staff) – WIC EBT System Quality (1)

7. How would you rate quality of WIC EBT network reliability?		
1 (Not acceptable)	0	0.00%
2	1	50.00%
3 (Neutral)	0	0.00%
4	1	50.00%
5 (Acceptable)	0	0.00%
Total	**2**	

Exhibit 6-35: State Staff Survey Results (IT Staff) – WIC EBT System Quality (2

8. How would you rate quality of WIC EBT system speed?		
1 (Not acceptable)	0	0.00%
2	0	0.00%
3 (Neutral)	1	50.00%
4	1	50.00%
5 (Acceptable)	0	0.00%
Total	**2**	

Exhibit 6-36: State Staff Survey Results (IT Staff) – WIC EBT System Quality (3)

9. Please provide any additional comments you have about your experience with WIC EBT Technical Support functions.

- Rewrite the API; Card assignment should be household based and not participant based

10. Please list the top five problems during WIC EBT operation and whether they were resolved or had a satisfactory workaround.

- Volatility of the API - had to code around it;
- EBT Software had some type of memory leak - isolated EBT server and rebooted every night;
- Need to rescan food items when communication problems occur - no resolution

11. Do you have any suggestions for other types of training/reference material that would be useful?

- No responses

7. TECHNOLOGY PERSPECTIVE

The following section will focus specifically on the system and system components of the Washington demonstration. Previous sections discuss users' experiences with the system, but this section will consider the different components and functions of the system: what worked well, where there were issues, and why those issues occurred.

The general consensus of the project team and others associated with the project is that in most cases the base technology and design were sound. Project scope and timelines limited some of the functionality which would otherwise be included in a larger system rollout. The system developed was also intended to be a baseline system. It needed to be functional, but would include mainly the minimum requirements needed to operate a retail store with access to dial-up telecommunications only. Decisions were made throughout the project to include or not include certain functionality. For example, some functions or features such as software download, terminal diagnostics and local UPC table were not included due to time constraints. However features that were not part of the original requirements such as customer confirmation and enhanced receipts were included at the request of FNS and Washington.

Testing attempted to touch on all possible scenarios of the system's use and identified issues with navigating the transaction, which were later resolved. Some situations and issues were not foreseen, particularly in the area of coordinating the terminal processes with the lane flow in each store. Once the system was in production, some cashiers began reporting difficulties with certain aspects of the transactions. Several enhancements were identified to remedy these issues, but would not be able to be implemented during the six-month demonstration time frame.

These constraints ultimately had an affect on how the system was perceived by some of the users. Lessons learned from the demonstration provide insight into to what features and enhancements will be required for the system to ultimately be accepted.

7.1. Clinic Operations

EBT clinic software was developed to support clinic operations. The software was composed of several programs that worked together in the clinic with the WIC certification system to accomplish clinic transaction processing, including: account set up, card issuance, benefit issuance, household reassignment, card replacement, and benefit adjustment

Within the clinic, EBT operations are supported by several system components that interface with each other to complete the transaction processing tasks listed above. These components included:

- The Application Program Interface (API) software: programs compiled as a standard Windows dynamic-link library (DLL) that coordinate the interface between the other EBT clinic system components as necessary. These may be accessed directly or through an executable wrapper application. The executable wrapper application uses files to communicate and must be started by the WIC certification system whenever an operation is needed. If it is needed, or is preferable, a second executable wrapper application using TCP/IP communications and acting as a server application could also be implemented:
- The online client/server software: a program that runs behind the scenes to conduct all online communications with the EBT host system;
- The settlement client/server software: a program that runs behind the scenes to conduct all settlement communications with the EBT host system which include system parameter updates; and
- The WIC Card Management System (CMS): a Windows-based application that provides the user interface to all EBT functions (APIs) that are not initiated by the WIC Certification System.

Another system involved in clinic operations, but not a component of the EBT clinic system is the WIC certification system. This is the application used in WIC clinics to collect participant data and determine eligibility for the WIC program. Although it has not been identified as a component of the EBT clinic system, the WIC certification system can be, and in Washington was, interfaced with the APIs to initiate certain functions. This meant few clinic operations needed to be performed through the stand-beside CMS software.

In the Washington Demonstration, the host processing, communications with the host, and APIs functions all worked as designed and functioned properly throughout the demonstration. The clinic staff found the CIMS integrated functions very easy to use and generally felt the communications with the host were sufficient. Few staff had to use the CMS (which was only needed for PIN changes), and did not report any problems.

The way in which the functions were integrated into CIMS allowed the clinic to maintain the same patient flow and staff separation of duties as their paper operations. During the course of a certification (or recertification) appointment, the client would seen by a nutritionist. After selecting the food package, the nutritionists would choose the type of issuance, checks or EBT. When EBT was selected, messages would be sent to the host to first set up the account and then issue benefits. A shopping list would then be printed for the client. The client would then go to the front desk to receive their card and training. When the clerk

issued the card, the system would connect to the host to assign the card to the account that was just set up.

Exhibit 7-1: Clinic Staff Explain the Shopping List to a Client

As mentioned, not all functions were integrated into CIMS. In a larger rollout the State should consider further integration so that the CMS is not required for any functions. There were limitations for the demonstration for integration due to time constraints and the limited scope and therefore functions like PIN change, card replacement, and benefit adjustments were not included in CIMS.

Further, in a future rollout, the State will want to clearly define the functionality that is needed from the EBT system to support their operations. While the EBT host and clinic software met the design requirements of the demonstration, additional functions will likely be desired to meet the needs of a larger rollout. Additional functions that should be considered are:

- Ability to update demographic data. At this point there is no functionality to make name changes or zip code changes when they occur or correct incorrect birthdays.
- Ability to support additional demographic information such as addresses and phone numbers to be used to for identification purposes (only zip code is currently supported).
- Ability to replace a card without having to enter the old card number. The clinic did not have access to host information and could not look up the old card. Even if they did it is cumbersome to switch back and forth between systems. Any replacement card issued should cancel the old card that was issued to that individual. In the demonstration, the clinic used the Card Issue function for card replacement, which issued a new card without canceling the old one. Unless the clinic called SVS Customer Service the cancel the card, the old card (which may have been lost, stolen or damaged) remained active, which is not good. This was possible because multi-card issuance was a feature of the system, but the State preferred not to use it.
- Ability for the host to return client demographic information to the clinic in a message format. This would allow clinic staff to see account or demographic information through CIMS, since the clinic did not use the web-based interface to the host.

Few issues were actually encountered in the clinic. One issue, which began a few months into the demonstration, was a problem with the EBT server software residing in the clinic, which required that the server be rebooted each day. To avoid any issues with the certification system and not-EBT clinic business, the EBT server software was moved off of the main clinic server. State QA staff tested the software and was able to recreate the issue in the lab and reported the issue to SVS who began to investigate the problem. Prior to the conclusion of the demonstration, the issue was still open.

An issue encountered during acceptance testing, but resolved prior to implementation was an issue with communications between the State's and SVS routers. It is noted here because it was a complicated, time consuming and required coordination from several parties to resolve. The issue was that the State's router lost connectivity with the SVS host after a period of connectivity time. The router used by the State had to be power reset every night in order for it to remain operational. SVS network staff worked with network staff with the State and could not determine why the two routers could not maintain continuous stable communications. SVS used a CISCO router and the state used a different brand. In addition, there were six State firewalls that needed to be navigated for communications to occur. Discussion and testing between the State and SVS network personnel were escalated to both manufacturers, and revealed that the two different brands of routers introduced compatibility issues. This issue was eventually resolved, but required several teleconferences between, SVS, the State, router manufacturers, and other service providers as part of the process. Future implementations should consider this experience as part of their planning process to ensure that the proper amount of time is allotted for establishing, testing and maintaining connectivity.

7.2. Stand-Beside POS

The stand-beside POS terminals were used to send messages from the check-out lane to the EBT host system for:

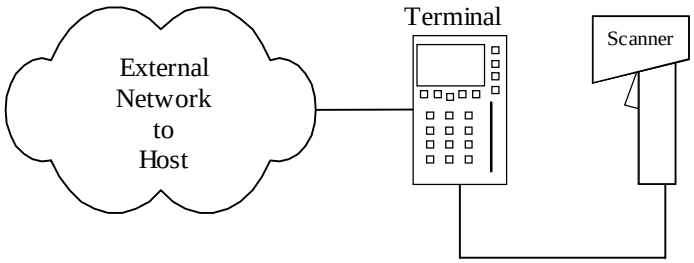
- Verifying card, PIN, and account information;
- Performing balance inquiries;
- Sending item authorization and purchase information; and
- Completing transactions.

As required by FNS, a stand-alone POS device was used in the lab demonstration and the field demonstration. Stand-beside POS devices are typically used by retailers who are unable or do not want to integrate EBT functionality into their existing ECR systems. For the demonstration, all stand-alone POS devices were designed as single-lane terminals and used dial-up communications to connect to the EBT host system as well as had

the ability to connect via high speed TCP/IP connection. As a single-lane terminal, each POS deployed required a dedicated phone line.

The Verifone 3750 terminal was selected because of the application flexibility and adaptable functionality within the terminal. The following diagram is an overview of the stand-alone, single-lane POS.

Stand-Alone, Single-Lane POS



The POS software worked within the design framework developed with input from FNS, SVS, MAXIMUS, Washington, and other states participating in design sessions and the functional demonstration. The application that was implemented was fully tested and passed FNS Acceptance Testing.

Overall, the project team felt that the stand-beside terminal per specifications and approved design met the expectations of the demonstration and showed that online transactions could be performed in lane in a dial-up mode. With more time allowed to complete the demonstration and make necessary enhancements it is felt that the terminal could have exceeded the expectations. The team will continue to work and enhance the dial up environment as well as refine the integration tools. The following describes the successes and lessons learned from the demonstration related to the POS terminal.

POS Equipment

Both the terminal and the scanner were durable and reliable. Only one terminal and one scanner were replaced during the course of the project. The terminal's all-in-one design was good in that it minimized points of possible failure and occupied less counter space than many traditional stand-alone terminals. However the fact the terminal needed to accessed by both the cardholder and the cashier made the placement of the terminal important. Not all stores were able to accommodate a location that worked for all users. A separate PIN pad could be considered for future implementations.

Some users expressed difficulties with the terminal's keypad stating that they made keying errors because the buttons were difficult to press. To

resolve this issue, future implementations might consider investigating other types of equipment.

There was one issue reported to the State about the scanner, which was not reported in the retailer survey or interviews. There was rare error with the scanner in which it did not scan the entire code. The partial code was batched with other items and sent to the host, which ultimately rejected the item. It was reported by the store manager that such a problem is common even for their store scanners. The difference is that the store scanner's data is immediately validated against their store's UPC table and beeps a rejection. The manager reported this occurred only three times that he knew of (one of which occurred when a member of the State WIC staff was timing purchases). Future implementations of the system should consider enhancing the POS validate the check digit contained in each UPC which can be used to identify invalid UPCs for cashiers. This issue also provides another reason supporting implementation of a UPC table in the local EBT terminal which would ensure that invalid UPCs are not sent to the host.

Ease of Use

The POS terminal software was sufficient to support the required transactions. In terms of the ease of use of the terminal, unless user errors occurred or items were denied by the host (which caused cashiers some confusion) users felt the transaction process was sufficient. About half of the usability issues that were noted by the cashiers were related to the fact it was a stand-beside terminal. They did not like double scanning or key entry of prices stating that it was inefficient and time consuming. As noted previously, it is difficult to determine how much of there perception that the terminal was slow, was related to the fact it was a stand-beside or because of transaction processing time.

User errors were difficult for cashiers to recover from because they could not review scanned items or prices entered on either the receipt or display to see what had been entered incorrectly. Therefore, cashiers would get to the end of a transaction and compare the WIC EBT terminal total to the cash register, realize there was an error, but not know which item or items had caused the error. The only way to recover at that point was to restart the transaction and rescan all of the items.

Due to the limitation in scope and timeline, the terminal design met the project requirements, but may not have been as robust as would be needed in a larger rollout. Issues navigating the terminal to correct errors were recognized early in the demonstration as an area where future enhancements would be necessary, but could not be implemented during the demonstration. The developers were able to add a subtotal function that displayed a running subtotal of the purchase throughout the scanning process, which would allow the cashier to compare the WIC EBT terminal

subtotal to the cash register and identify errors as they occurred rather than at the end.

Usability issues related to error recovery can be overcome by enhancing the POS software to:

- Support printing of items scanned and prices entered as they occur;
- Include a function that would display a list of items scanned and prices entered on the terminal display screen; and/or
- Allow the user to select an item from the displayed list for correction or deletion.

Another usability issue encountered was related to denied items. It turned out that denied items could be problematic for two reasons. First, in the typical lane flow, items are scanned and then bagged. With the bundled transaction mode, the cashier does not know which items are denied until after all item scanning has been completed at which point the items are likely bagged. This meant that if there were a denied item in the transaction, the cashier would usually have to look for the item in the bag. This process was considered during the design phase and it was understood by FNS and the project team that un-bagging might be part of the process, but would try to be avoided as much as possible. Some of the features discussed at that time to avoid un-bagging were ultimately not included due to the limitations of the demonstration.

In addition to un-bagging denied items, cashiers found the identification of the denied items difficult. The information on the POS terminal was not always sufficient enough for the cashiers to easily find the item that was denied. Information displayed for denied items were the subcategory description, quantity and the UPC, for example “TAKE OUT 1 GAL MILK.” However sometimes the subcategory description did not provide enough information to distinguish between two items, therefore the cashier would not know which to remove, the skim or the whole milk if they were the same size. A limitation of the X9.93 message format was that it did not include a field for the actual item description, so only the subcategory was returned to the POS. Enhancement to the message format allowing the host to send the complete item description to the terminal would alleviate many of the issues related to identification of denied items.

In the case of a non-WIC item, the terminal would display “NO DESC” since the UPC did not match up to any subcategory in the database. This made identification of the denied item difficult for the cashier who then needed to use the UPC to determine which item was denied. The POS terminal software in the demonstration did not include a local data base of approved UPCs. This was a design feature that was not implemented due to scope and time constraints. If implemented, non-WIC items could be identified immediately upon scanning and not sent to the host. An override feature would be needed to send the item to the host if the

cardholder or cashier thought that it really should be a WIC approved item allowing the host to make the final determination. The local UPC table would eliminate issues associated with the identification of non-WIC denied items.

To resolve issues related to denied items, future implementations should consider:

- Use of a local table of approved UPCs in the terminal;
- More descriptive information about the denied item provided to the terminal from the host; and/or
- Use of other transaction modes that identify item approval or denial when it is scanned.

Communications

The POS terminal worked well in a dial-up scenario by providing quick response back from the host once a communications connection was established. Cashiers indicated that it sometimes seemed to take a long time to connect to the host. Anecdotal information and some timings that were done by the State indicated that the time from initiating the dial connection to disconnecting was between (occasionally as much as) 45 and 60 seconds. Typical times observed early in the demonstration showed 20-30 seconds to make the connection. When times reached 45+ seconds, a communication error was reported on the terminal.

Timing data recorded by the WIC EBT POS terminal show that the average dial up host communication time[14] averaged slightly less than 14 seconds meaning 30 seconds or more were spent connecting to the host. During the demonstration, project team members noticed that the terminals seemed to be taking longer to connect to the host than they had during testing. It was thought that the terminals might not be getting the phone line in the first dial attempt and having to redial to connect to the host. This is still considered a prime reason for long connection times. The terminal was also using a 2400 baud dial-up scenario due to system design. Because of this speed, the terminal could lose connectivity with the host or time out before connections could be made to the host. Cashiers also encountered communication errors that required them to restart transactions from the beginning. This sometimes involved power cycling the terminal. Software enhancements were made and in the last month of the project, a pause was added to give the terminal three seconds before dialing to ensure the line was available. These reduced some of the issues and occurrences of communication errors, but because there was

[14] This is the time from when the POS makes the connection to the host (does not include dialing) to disconnection. It includes two communication activities between the systems, the bundled authorization and coupon/purchase completion, but does not include user time between the activities.

limited time remaining in the project it was unclear what impact these had on the users' experience.

An accepted limitation of the terminal was that the display of communication messages were limited, therefore the user would see "Connecting (Dial)" displayed, but not be notified of a busy signal, no line available, or that the terminal was redialing. Also there were no diagnostics included in the software therefore it was difficult to determine the exact nature of the issues. Project team staff made an onsite visit to the stores with diagnostic software, but was not able to identify the issue at that time. Further, the phone company was contacted and they determined that there were no line issues.

The terminal design included IP functionality, allowing the participating retailers the option of utilizing high-speed connectivity instead of dial-up. Two of the retailers implemented a high-speed connection, which resolved many of the connection and communication issues.

Reporting and Reconciliation

The POS terminal provided adequate and detailed reporting information on the receipt for the consumer and the store managers. An issue with the display of information on the Auto-Reconciliation report was identified during the project. A new version of the software was implemented to resolve the issue, but the issue appeared again during the last month of the project. As of the conclusion of the demonstration, the issue was still in the process of being resolved. Further investigation is required to determine whether the source of problem is the host or the POS terminal.

Two of the stores were able to successfully reconcile on a regular basis. The other store had difficulty reconciling the POS totals with their store system, due to several issues. One issue was because their business day did not match the host-processing day therefore transactions did not always match between the systems and additional work was required to reconcile. The financial system used by the store was fairly rigid affecting the ease of reconciling the systems. In addition, reconciliation tasks were not typically done at the store level for that chain making the reconciliation an additional task. Even though it was a demonstration, the chain did not authorize additional support for this task. To help resolve the issues that this store was encountering, SVS enhanced the terminal application to support a manually triggered end-of-day cutoff that allowed Safeway to synchronize the stand-beside totals to their store system's timeframe, but it was not used before the demonstration ended. MAXIMUS also provided to Safeway with host-based reports detailing daily activity in order to assist with the reconciliation.

Additional Enhancements

Some functionality was not initially included in the demonstration terminal because of scope and time constraint. Other potential new

functionality was identified through the demonstration operations. There are other changes that could be implemented to improve the stand-beside terminal, in addition to the enhancements noted above.

Only a single lane terminal was developed for the demonstration. The original project requirements called for only one lane equipped per store, which was later adjusted to two in-lane terminals and a balance inquiry terminal. Although each of the stores had two terminals in-lane performing transaction, the terminals operated and reported as if they were separate stores. This meant the terminals had to each be closed and reconciled to the store system individually.[15] A future rollout should include the development of a multi-lane system which allows for all lanes to be linked and support one end-of-day, one set of reporting, and one reconciliation.

Some initial work was done by SVS to support a store initiated end-of-day to assist the store that was having difficulties with reconciling due to differing store and host business days. With the conclusion of the demonstration occurring within two weeks from the time when this feature was available, the process was not implemented during the demonstration because the store was not interest in changing their processes at that point. Store initiated end-of-day should be required for any future project. Further work should be done in this area to ensure that it is available for all stores which would allow for the store totals to remain in synch with the host totals and avoid the issues that were encountered by one of the participating stores during the demonstration.

While it is felt that the POS terminal can be improved to better support operations, ideally a stand-beside terminal should be used only when integration cannot be accomplished. A lesson from the demonstration was that the users did not like the stand-beside concept and many of their issues including some related to the terminal software would be alleviated through integration and always-on, high-speed connectivity to the host.

7.3. Communications

Once communications were established, processing occurred fairly quickly. Issues were associated with the terminal accessing the phone line, dialing out and communication errors. The communication errors, while infrequent, became a more significant issue for the retailer associates. Retailers indicated that they occurred frequently, but there was

[15] Because of the reconciliation and end-of-day issues reported by one of the participating stores, SVS developed an enhancement that allowed a store to initiate the host end-of-day process from one single-lane terminal and would combine reconciliation reporting for all terminals in the store. This was part of the same enhancement that added store-initiated end-of-day on the host. This was not implemented because it was not available until the last month of the demonstration and the store that was having difficulties did not want to change processes with the demonstration ending in two weeks.

no system information to validate that statement. The nature of dial-up connectivity for POS terminals is such that occasional communication errors will occur.

Research was performed to determine the cause, but the issue could not initially be recreated. The application was later enhanced to gather and report POS statistics in order to further explore the errors, but the demonstration ended before significant information could be obtained. Prior to the implementation of the statistical reporting enhancements, the retailers were asked to keep a log of when communication errors occurred.

The communication errors did not occur with every transaction or even every day. The problem was intermittent and infrequent. The logs showed that over a period of 101 days, 51 communication errors occurred during purchase transactions. Compared to the total number of purchase transactions during that same time, 2,356, communication errors only occurred in 2.2 percent of purchases. Communication errors during settlements seemed to happen slightly more often. There were 44 incidents logged which were associated with settlement transactions representing 4.7 percent of all settlements during that time period.

During the demonstration POS software enhancements that were expected to solve the problem were initially tested in the busiest lane in the demonstration. The enhancement reduced the number of communication errors in that lane, but it did not eliminate them. The Project Team continued to monitor communication error activity in all terminals through the manual logs. In October, the communications enhancement was added to the software in all the terminals, in addition to other updates done at the same time. At that time, the Retail Manager also placed one comma in front of the phone numbers the terminals were dialing to give the terminals three additional seconds of time to grab the phone line. The communications enhancement plus the additional three seconds appeared to help reduce the number of communication errors, but still did not eliminate them.

The causes of the communication errors were never fully determined. It appeared as though the terminals were either not grabbing the dial tone to enable the terminals' modems to dial the host phone number or not making the connection to the Host once they did get the dial tone. It is not clear if this is one of the reasons for the communication errors.

Communication delays were strictly related to the dial-up communication scenario, and not due to any host processing. While it was an infrequent and declining issue, more research is needed to determine the root cause of the error. More time in the demonstration would have allowed the enhanced application to gather statistics within the terminal when the comm. error occurred, and possibly yield results as to the cause of the problem, beyond "normal dial environment." Work will be continued to

try to recreate the problem including running a diagnostics program to determine the types of error codes received and how to resolve the errors.

Without communication errors or dial-up delays, communications over dial-up were acceptable, but could be improved. The average host/communication time recorded by the POS was approximately 14 seconds. .542 seconds of that time are actually spent by the host processing the transaction. Continued and extensive testing of the application needs to be performed to determine where improvements in communication times can be made. All avenues of possibility will need to be explored to shorten the communication times in the dial environment.

7.4. Host Processing

Host processing was reliable and processing speeds were fast (.542 seconds per transaction). Compared to SVS Gift Card transactions with processing times of .1-.2 seconds, the WIC processing time is insignificantly longer considering; however, WIC processing requires more updates and look-ups per transaction. The gift card program only looks at transaction type and amount, whereas the WIC transactions are looking for UPC and other information that span across different database tables. Processing times were acceptable, but SVS believes they can enhance the program to support faster response times. Research will need to be completed by system staff to determine how this can be done.

Transactions were processed correctly and there were no issues with balances being incorrect. The State noted one purchase in which the retailer believed the transaction did not complete at the host (an error was reported on the terminal). They attempted to re-try the purchase, but were unable to successfully complete the transaction. Ultimately, they refused to give the client her food and canceled the purchase on the store's ECR. It was later determined that the transaction was completed by the host and the benefits were deducted from the account. The store received $119 in their daily deposit which they were not entitled to and recovery was problematic and performed outside of the normal EBT system functions. The clinic provided client with formula to ensure that she received all of the benefits to which she was entitled. What should have occurred in this situation is a reversal transaction, but it is not clear why this did not occur. This issue was researched at the time, but further investigation and testing is required to determine if this was a host issue or an issue with the WIC EBT terminal.

The host was remained available throughout the demonstration with the exception of two instances, which were not related to the system availability, but were procedural issues associated with system maintenance. Host up time was 99.84 percent. The host downtime consisted of six hours over course of demonstration. Downtime was scheduled within the data center. Internal procedural improvements were

made to ensure that the appropriate personnel were notified of schedule down time. SVS also implemented monitoring tools and more accurate alarms to alert for slow down in transaction traffic.

7.5. Integration

Integration is a key and vital component to the future of any WIC EBT system. While this demonstration was designed as a "proof of concept", integration must be considered before the full analysis of Online WIC can be done. In the online environment, integration will allow for the terminals to talk to the SVS host at a higher rate of speed (9600 baud) using TCP/IP programming which was designed as communications software that is faster and more robust.

System integration would eliminate the double scanning process. .The UPC table and the item prices would be integrated into the host and eliminate the need for most key entry on the terminal. Integration would eliminate keying errors, lane congestion and provide more detailed reporting for the retailers to use in reconciliation.

Using TCP/IP is also a more reliable communication method and could eliminate most communication errors. There would be no restarts or redialing out to the host. Integration could also eliminate the need for additional hardware at each lane. The retailer could use the same terminal as their other debit, credit and gift card applications.

7.6. Transaction Modes

Only one mode, Bundled Authorization with a Purchase Request (also called "bundled late"), was used on the demonstration. In this mode the terminal connects to the host at the end of the transaction. It was selected because it was thought to be the most reliable mode over a dial-up connection. The mode works by bundling all of the transaction information and sending it to the host during one dial-up connection.

It could be argued that what was gained in order to accommodate the lowest common denominator in communications (dial-up) came at the expense of a better "interactive" user interface or experience. Some of the complaints about the terminal were directly associated with the bundled late mode. Specifically, the confusion caused when items were denied which often required items to be un-bagged. The notification of denied items occurs at the end of the transaction and did not fit in well with the retailers' lane flow.

This does not mean that bundled late mode should not be used in future implementations. Actually, what was learned as part of the demonstration was that the mode could work better with a few enhancements. The main limitation of the mode is that denied items are not recognized until the end of the transaction. One enhancement that would help identify some denied

items earlier in the transaction would be the inclusion of a local UPC database. All scanned items could be verified locally to determine if they are WIC approved. Cashiers could be immediately notified of any scanned items that are non-WIC. Items denied because they are not in the client's balance would still occur at the end of the transaction and will likely be an issue to retailers with a lane flow where items are bagged after being scanned.

Another bundled mode was designed for online WIC EBT where two connections are made, referred to as "bundled early." This mode could resolve the denied item issue, while still limiting connection times with the host. In this mode, a connection is made to the host following the card swipe and PIN entry. The host verifies the card and PIN and the terminal obtains and prints the account balance. The balance information could be used to perform a prediction of items that will likely be denied by the host due to insufficient balance as they are scanned. This would allow cashiers to set aside items likely to be denied until the final confirmation is returned during a second connection with the host. While this mode may solve one issue, it could create another caused by the multiple dial-up sessions depending on how long it takes to connect to the host. In the Washington demonstration, the estimated time to connect to the host was about 10 to 15 seconds. Unless this is improved, the connection time would be doubled in the bundled early mode. This mode could work well over high-speed, but at that point it would probably make more since to use an item-by-item mode.

Item-by-item mode was not considered for this demonstration because during the functional demonstration and later testing it did not perform well in dial-up. It did, however work very well, over a high speed connection. Two forms of item-by-item were developed item-by-item purchase and item-by-item authorization with purchase request. Both are described in Section 2.6 Transaction Mode in the background section of this document. The more robust of the two is the latter. Item-by-item authorization provides more flexibility to how items are applied to the cardholder's accounts and was therefore considered the more viable of the two modes.

Item-by-item modes require constant connectivity with the host throughout the entire transaction. In item-by-item mode, item data is transmitted to the host for approval or denial as they are scanned. This allows cashiers to instantly know which items are approved or denied. Dial up communications were tested during the functional demonstration with this mode, and while transactions were completed accurately, there was a lag time between scanning and approval. It was the consensus of the participants that processing time was too slow for it to be acceptable in-lane. The group was impressed with item-by-item over a high-speed connection and felt that it should be considered for the field demonstration

after bundle-late in dial-up had been fully tested. The demonstration ended before this could be accomplished.

It is felt that item-by-item with a high speed connection would likely work best with retailer lane flow. In a way it mirrors what happens in an offline transaction, but instead of communicating with the card, the terminal communicates with the host. The limitation of item-by-item is that it works best over a high-speed connection which may not be available to all retailers.

All of the modes that are part of the online WIC EBT system design have both their advantages and disadvantages. Currently, there is no one size fits all model. Only one mode has been tested in a real-world environment. To determine their feasibility, other modes should be considered for the next implementation of online WIC EBT.

7.7. Project Team Lessons Learned

The purpose of the project was to test new technology and determine if online transactions are potentially a feasible alternative for WIC EBT. Most of the project team was experienced in implementing offline WIC EBT and/or Food Stamp/cash EBT systems and may have had some expectations about the system design and operation. As the project progressed many lessons were learned, including:

- More operational testing should have been performed prior to initiating the field demonstration. While the acceptance testing process was thorough and complete, without retailer participation providing real-world scenarios along with the operation of the terminal in an actual retail lane with an ECR or a simulation, there is no way to understand the real issues that cashiers will encounter. The project team did provide demonstrations of the terminal to the retailers prior to acceptance testing and training prior to implementation, but their exposure was limited at best. More retailer input would have helped fine tune the interface to make it more usable in their environment.
- More time was needed to completely test the system and to provide time for new software release, review of software updates and other data gathering. The demonstration had to be concluded a month early so it would not conflict with the busy holiday season.[16] Because the demonstration concluded earlier than expected it could not be confirmed if software updates resolved the issues they were intend to fix. In addition, data gathering that had been planned for the month of November had to be stepped up so

[16] The demonstration started a month late because of additional acceptance testing required by FNS to ensure that the system was functioning properly prior to implementation.

they could be completed before the end of the demonstration. Once the decision was made to conclude the demonstration, clients quickly moved back to checks and the number of transactions dramatically decreased making in-store transaction timings difficult.

- A wider mix of retailers would have provided more insight into the feasibility of the stand-beside terminal. The retailers in this demonstration had 100 percent integrated environments prior to the project, and were not used to stand-beside systems. However, one benefit to this is that the next generation stand-beside will be more robust than "standard" stand-beside systems, at it will incorporate requirements learned from integrated retailers.
- Ensure that all of the retail participants are willing to fully participate. The WIC EBT demonstration added additional tasks to one of the participating stores because they did not routinely handle account reconciliation at the store level. This task fell onto staff that were not trained as bookkeepers and who had other responsibilities. In addition, reconciliation was not properly completed in the initial weeks. Reasons for the errors were conflicts in timing between WIC EBT and the store's financial management system and inconsistent personnel performing the reconciliation. When these issues were identified two months into the demonstration the store attempted to catch up on their reconciliation which at that point was a daunting task. No additional staff hours were provided to the store by their corporate offices to support the bookkeeping responsibilities or help reconcile WIC EBT. The project team tried to provide as much support as was feasible, but without strong support from management or corporate offices, the store never quite recovered. It should be noted that issues were identified in the reports that caused some difficulties in reconciling, but host reports were faxed to the store daily to provide the need information while the technical issue was being resolved. The lesson learned here was that while the store was willing and interested in participating in the demonstration, it is not clear that all were fully committed to the demonstration and the work involved.

7.8. Summary of Proposed Enhancements and Design Changes

The following is a list of proposed enhancements and design changes. The list includes those enhancements or changes that were identified and documented during the demonstration in the Production Incident (PI) log. *These will be identified in the list with "(PI)" following the description.* Some of the items in the PI log resolve very specific issues. Others were broader recommendations identified by project team members, such as the

Retail Manager when she encountered something in the system that could use improvement. The list also includes enhancements or changes that were identified as part of this report that were not previously documented in the PI log.

System	Proposed Enhancement or Design Change
Clinic	Add functionality to update demographic data. At this point there is no functionality to make name changes or zip code changes when they occur or correct incorrect birthdays.
Clinic	Add functionality to support additional demographic information such as addresses and phone numbers to be used to for identification purposes (only zip code is currently supported).
Clinic	Add functionality to replace a card without having to enter the old card number. The clinic did not have access to host information and could not look up the old card. Even if they did it is cumbersome to switch back and forth between systems. Any replacement card issued should cancel the old card that was issued to that individual. In the demonstration, the clinic used the Card Issue function for card replacement, which issued a new card without canceling the old one. Unless the clinic called SVS Customer Service the cancel the card, the old card (which may have been lost, stolen or damaged) remained active, which is not good. This was possible because multi-card issuance was a feature of the system, but the State preferred not to use it.
Clinic	Add functionality for the host to return client demographic information to the clinic in a message format. This would allow clinic staff to see account or demographic information through CIMS, since the clinic did not use the web-based interface to the host.
Clinic	Resolve issue where clinic was unable to connect to SVS host and could not issue EBT benefits. System locked up the Windows server requiring reboot. (PI)
Host	In item-by-item mode (*not implemented during the demonstration*) if you cancel purchase that contains an item that has been cancelled, then the host also adds back the amount for the item that was cancelled during the purchase. Cancelled items should be ignored. (PI)

System	Proposed Enhancement or Design Change
Host	The host needs a special "one-sided" adjustment transaction to correct issues that throw the system out of balance. Currently, if the system becomes out of balance due to a system error there is no way to bring the system back in balance. (PI)
HUI	Exchange size on UPC edit (and possibly other screens) requires that it be entered as 1.00. It should be enhanced to handle 1 and 1.0. (PI)
HUI	The current implementation in production is looking for the .ski file \wic\tas\bin. It should either look for the file in wic\sam. We just have to change where the service looks for the sam file. (This is note for the next time we make a HUI change.) (PI)
HUI	Improve some of the linkages between screens such the ability to look at a transaction and then click on a link to see the record/profile of the retail location where the transaction was completed.
HUI	Add functionality to update demographic data.
HUI	Add functionality to perform manual authorizations that support a clearing transaction through the terminal on the retailer's side.
POS	Reduce or eliminate communication errors.
POS	Display or print items and prices that have been previously entered
POS	Display a running count of items in addition to a running subtotal
POS	Improve terminal navigation. Allow a item or price that have been previously entered to be edited by selecting from a list on the display
POS	The POS terminal should support the use of an external PIN pad.
POS	Enhance POS messages during the connection process to better identify what activities are occurring on the POS or the status of the phone line (i.e., no dial tone, line busy)

System	Proposed Enhancement or Design Change
POS	Add local UPC database to the terminal for identify non-WIC items.
POS	Provide a more detailed description of denied UPCs (those that are approved UPCs, non-WIC UPCs are not in the database and would not have a description).
POS	Improve time connecting to the host (particularly in dial-up mode)
POS	Reported by Safeway. When scanning multiple pieces of individual 1 oz, string cheese packages at the 2@99 for (Lucerne) and 2@ 1.09 (Frigo), they are entered into the WIC EBT terminal at 1 @ .45 and 1 @ .44 for the Lucerne, and 1@ .55 and 1@ .54 for the Frigo. If the cardholder is not eligible for one or more of them, the Safeway cashiers have reported that the terminal automatically takes out the higher priced one (or more). Safeway's register is programmed to take out the lower priced one. Could not be duplicated during testing. (PI)
POS	Resolve Upload File Error during settlement - IP connectivity. (PI)
POS	Need to add a means for having the terminal display and/or print an application version number. (PI)
POS	Parameters should be added to the terminal that could make terminal updates at the retailer more transparent (i.e., software download direct from host). (PI)
POS	Add option to change Phone numbers and IP addresses via Menu. (PI)
POS	Add a report of current configuration in the terminal. (PI)
POS	The terminal include Static IP in additional to DHCP. (PI)
POS	Terminal should support check digit verification on card. (PI)
POS	Terminal should support check digit verification on UPC. (PI)
POS	Add a report to print the available batches. (PI)
POS	POS communication errors need to be addressed.

System	Proposed Enhancement or Design Change
POS	Occasional (yet infrequent), Supervisor Password logon failures occur when attempting to go to and run either End-of-Day, or Settlement and Auto Recon. (PI)
POS/Host	Issue with auto-reconciliation report where data is displayed incorrectly, needs to be resolved. Further research and testing needs to be preformed to determine if this is a host or POS issue (PI)
Reports	In the monthly data file, Retailer Exception Analysis (this is really the max price attempted overcharge report), there is an issue with the reported data if a max price is changed during the month. The report includes a field for the max price of a UPC. The problem is that if a UPC is changed during the month, then the reported max is not necessarily the same as the max price at the time of the purchase. It needs to be determined if this field is necessary since the retailer is being paid the max price and this value can be inferred from the paid_price field. If this field is necessary, then it will take a fair amount of effort to correct the issue. (PI)
Reports	ONLR170A not computing redeemed amount correctly. This should affect the monthly xml data file for Family Utilization. (PI)
Reports	Standardize the references used throughout system and reports. For example retailer sites versus retailer IDs. (PI)
Reports	On the 810F and 840F reports the header cuts off when printing in the default, portrait mode. The header should be moved slightly left so the w/e date does not cut off. (PI)
Reports	Transactions were all of the items have been denied or all items have been cancelled prior to completion shows on the host as completed with a $0.00 purchase amount. Further consideration needs to be made about how these types of transactions should be reported on the host. (PI)
Reports	All reports with transaction time stamps need to be a flexible and user friendly concerning time stamps associated with transactions. Time stamps on these reports should be in local time for state and or time zone where transactions occurred. (PI)
Reports	All report titles should be consistent. ONLR000-ONLR570A, ONLR810F, and ONLR600a-ONLR920A (Washington or State of Washington) (PI)

System	Proposed Enhancement or Design Change
Reports	The 510X should be modified to include Incomplete/Overridden transactions. (PI)
Reports	A report is needed that can balance at the account level. Currently, there is only the 570A which balances at the system level. (PI)
Reports	On the ONLR510A report, retailers should be listed in a consistent order. Chains should be grouped together. (PI)
Reports	The 850A is the list of all new retail locations input into the system. To handle multiple states, the 850C will the list of retailers activated for a particular state. For example, an existing Washington store on the border with Oregon could have an agreement with Oregon to do EBT. When this retailer is activated for Oregon, it would show up in Oregon's 850C but would not show up again in the 850A since the retailer is not new in the SVS system. The report titles need to change. (PI)

Exhibit 7-2: Proposed System Enhancement and Design Changes

APPENDIX A: PROJECT STATISTICS

A. Project Statistics

The following appendix provides statistical data collected from the system as well as through transaction timing and retailer logs. Data provided in this section includes transaction statistics, transaction timings, customer service data and communication error data that were collected by the retailers.

A.1 Transaction Statistics

The following tables and graphics present the transaction statistics from the entire demonstration. It is also broken out for each month of the demonstration this includes:

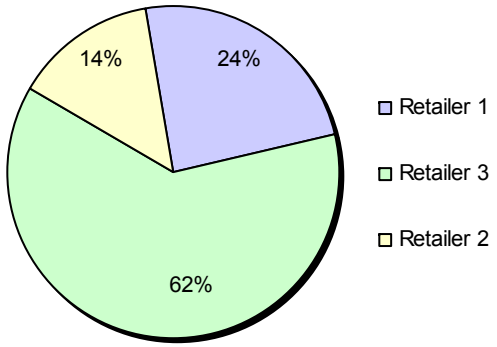
- Retailer transaction:
  - Number of transactions
  - Number of transactions per store
  - Dollar value of transactions
  - Average dollar amount per transaction
  - Average dollar amount per transaction per store
- Clinic transactions
  - Number of households established
  - Number of participants established
  - Number of cards issued
  - Number of benefits issued

Retail Transactions Summary

Totals	All Retailers		Retailer 1		Retailer 2		Retailer 3	
	# of Purchases	Purchase Totals	# of Purchases	% of Purchases	# of Purchases	% of Purchases	# of Purchases	% of Purchases
Cumulative	2554	$68,258.24	618	21%	352	13%	1584	66%
June 2005	58	$1,805.80	23	28%	7	19%	28	53%
July 2005	477	$13,679.12	131	25%	70	17%	276	57%
August 2005	695	$19,311.05	157	20%	90	12%	448	68%
September 2005	683	$18,161.13	167	18%	93	11%	423	71%
October 2005	588	$14,282.11	126	21%	88	12%	374	68%
November 2005	53	$1,019.03	14	14%	4	4%	35	82%

The table above provides a snap shot of each month's activity for all retailers and individually by retailer. The total number of purchases does not include transactions that were approved for $0. This includes transactions that were either cancelled prior to completion and transactions were no items were approved. The inclusion of these transactions would skew the average amount per transaction and were therefore excluded.

Retail Transaction Volume Distribution



Retail Transaction $ Amount Distribution

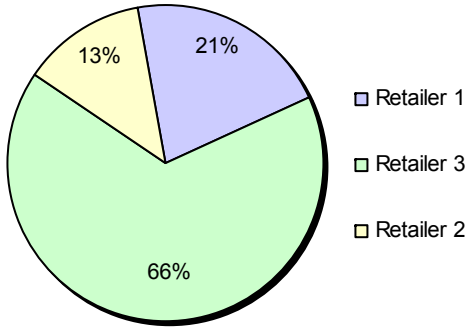


Exhibit A-1: Retail Transaction Distribution by Volume and Dollar Amount
These graphs depict the transaction volume distribution and transaction dollar amount distribution across the three participating retailers.

The average dollar amount per transaction was calculated for each store for all transactions in the demonstration. The averages fell in a range between $23.14 and $28.56.

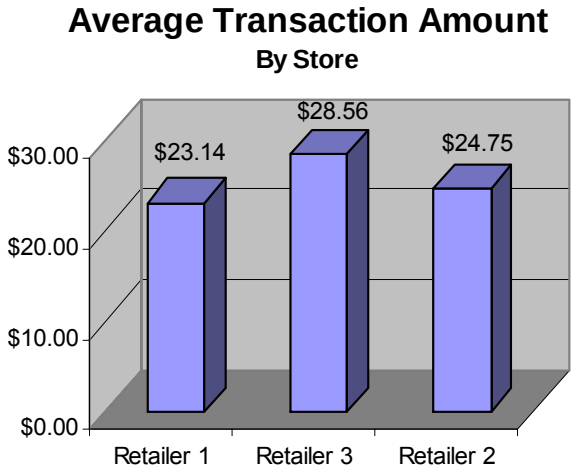


Exhibit A-2: Average Transaction Amounts by Store

The following table provides and overview of transactions that were exceptions. A description of the exception transaction types follows the table.

Exception Transactions					
	Approved-Incomplete	Approved-Overridden	Cancelled	Disapproved	Reversed
Cumulative	3	163	10	83	10
June 2005		8	4	5	1
July 2005		43	4	19	5
August 2005	2	46	2	23	2
September 2005		35		15	1
October 2005	1	30		18	1
November 2005		1		3	

Exhibit A-3: Exception Transaction Count

- Approved – Incomplete: This occurs when a transaction has completed the item approval process, but did not complete the transaction in its entirety. This could be due to a cashier choosing to cancel the transaction or a communication error. Incomplete transactions are ultimately overridden by the next transaction attempted on that card, therefore there are typically very few of

them. If a transaction remains in the Incomplete status, it indicates that future purchase purchases were not attempted on the client's card.

- Approved – Overridden: These are transactions that had been in an Incomplete status and a transaction was completed on the account which overrode the incomplete transaction.
- Cancelled – A transaction used to void or cancel out a previously completed transaction. This is a specific transaction type selected on the POS, and not cancelling a transaction prior to its completion. Most of the cancels the occurred during the demonstration were performed by the project team. Several were completed in the initial days of the demonstration after errors were found in the POS configuration. Later in the demonstration cancels were performed through the HUI by SVS staff to correct some cashier keying errors at the request of the State and the retailers.
- Disapproved – These are transactions that were denied based on the following reasons:
  - Invalid PIN (63 occurrences)
  - PIN Tries Exceeded (5 occurrences)
  - Restricted Card (1 occurrence)
  - Invalid Card Number (2 occurrences)
  - Card Number Not Found (6 occurrences)
  - Card Out Of Range (5 occurrences)

  Some of the disapprovals listed above occurred as part of project team testing during site visits. This is likely for disapprovals reasons Restricted Card, Invalid Card Number, Card Number Not Found, and Card Out Of Range. PIN Tries Exceed and Invalid PIN are representative of client activity.
- Reversed – A reversal is a system-initiated transaction that cancels a prior transaction attempt and resets the system to its previous status if the completion of the initial transaction cannot take place at the device (e.g., communication failure with the device, a device malfunction or a late timed out response from the host). Reversals typically occur when there is a loss of communications between the EBT clinic system and the host.

Clinic Transactions Summary

Clinic transaction increased each month through September as demonstrated by the table below. The month of October includes negative numbers in the household set up and clinic set up columns to account for

participants that returned to checks in the previous months. The host system did not report on clients in the system who did not receive benefits via EBT in subsequent months (i.e., returned to checks), therefore anecdotal information was use for these figures.

Clinic Transactions				
Totals	Cards Issued	Benefits Issued	Household Set Ups	Clients Set Ups
Cumulative	328	1329	302	501
June 2005	61	92	61	92
July 2005	168	309	164	278
August 2005	54	386	47	72
September 2005	41	372	35	63
October 2005	3	170	-5	-4
November 2005	1	0	0	0

Exhibit A-4: Clinic Transactions

Communication Errors

During the demonstration, the participating retailers were asked to log any incidents in which they encountered a communication error. This was indicated through a "Comm Error" message displayed on the POS terminal. They were asked to identify the activity that they were trying to do when the error occurred such as a purchase, settlement or balance inquiry.

The MAXIMUS Retail Manager regularly collected the logs from the retailers. The data from the logs have been recorded in the table below.

Communication Error Log				
Reporting Periods	Total	Purchases	Settlements	Balance Inquiries
Reporting Period 7/26 - 8/7/2005				
Recorded Incidents	21	3	17	1
Reporting Period 08/08 – 08/26/2005				
Recorded Incidents	22	14	8	0
Reporting Period 08/27 – 09/02/2005				
Recorded Incidents	11	8	3	0
Reporting Period 09/03 – 09/09/2005				
Recorded Incidents	7	6	1	0
Reporting Period 09/10 – 09/16/2005				
Recorded Incidents	14	7	7	0
Reporting Period 09/17 – 09/23/2005				
Recorded Incidents	2	2	0	0

Communication Error Log				
Reporting Periods	Total	Purchases	Settlements	Balance Inquiries
Reporting Period 09/24 – 09/30/2005				
Recorded Incidents	8	5	3	0
Reporting Period 10/01 – 10/07/2005				
Recorded Incidents	4	0	4	0
Reporting Period 10/08 – 10/14/2005				
Recorded Incidents	3	2	1	0
Reporting Period 10/15 – 10/21/2005				
Recorded Incidents	0	0	0	0
Reporting Period 10/22 – 10/28/2005				
Recorded Incidents	2	2	0	0
Reporting Period 10/29 – 11/04/2005				
Recorded Incidents	2	2	0	0
GRAND TOTALS				
Recorded Incidents	96	51	44	1
Transactions in Reporting Period	4,449	2,356	936	1,045
Comm Errors as a % of All Transactions	2.2%	2.2%	4.7%	0.1%

Exhibit A-5: Communication Error Log

A.2 Transaction Timings

Project team staff performed timing of transactions onsite at each of the three retailer locations in late October over a three day period during the demonstration. Additional timings were collected by State staff. One of the locations was using dial-up communications and the other two were using high-speed connections. Because the volume at the dial-up store was much higher than the two using high-speed, the majority of the timings were from dial-up transactions. In addition to EBT transactions, WIC check transactions were also collected for comparison.

The following table summarizes the number of EBT transactions that were collected by the timers. If a problem occurred during the transaction, such as it was required to be restarted or the there was a problem with an item, the timers were asked to note the issue. The transaction times were analyzed considering those that had not problems and those where issues occurred.

EBT Transactions	
Total TXNs Timed	30
Total Dial Up	24
Total High Speed	6
Total with No Issues	22
Total with Issues	8

Exhibit A-6: Number of Timed EBT Transactions

Transactions were timed by project team and state staff using stopwatches. In addition to stopwatch timing data, the POS terminal also collected transaction time information. This data included Host & Communication Time (Host & Comm Time) and POS Time. These timings were measured as follows:

- Total Transaction Time (Stopwatch Time) was measured from the point at which the cashier acknowledged the customer to when the customer was handed their receipt.
- Host & Comm time measured the time from when the POS makes the connection to the host (does not include dialing) to disconnection. It included two communication activities between the systems, the bundled authorization and coupon/purchase completion, but does not include user time between the activities.
- POS time measured the time from when the cashier initiates activity on the POS (i.e., selects Purchase from the main menu) to when the receipt begins to print.

Standard Transactions, No Issues Encountered

The following provides data on times collected for transactions where no issues occurred. They are reported by EBT Dial-Up, EBT, High-Speed, and Checks.

Dial-Up Transactions					
Averages Items Per Transaction	Number TXNs Recorded	POS Time (Seconds)	Host & Comm Time (Seconds)	Total TXN Time (Seconds)	Total TXN Time (Minutes)
All Transactions	19	56.61	13.80	162.53	2.71
1 - 3 Items	8	48.56	12.54	43.80	0.73
4 - 7 Items	5	54.41	12.45	123.33	2.06
8 - 10 Items	1	N/A	N/A	147.00	2.45
10+ Items	5	71.49	16.79	344.22	5.74

Shortest/Longest Times	Items	POS Time (Seconds)	Host & Comm Time (Seconds)	Total TXN Time (Seconds)	Total TXN Time (Minutes)
Shortest POS Time	2	45.72			
Longest POS Time	11	110.96			
Shortest Host & Comm Time	2		11.01		
Longest Host & Comm Time	12		19.82		
Shortest Total TXN Time	1			15.00	0.25
Longest Total TXN Time	18			810.00	13.50

Exhibit A-7: Standard Transactions, No Issues Encountered (Dial-Up)

High Speed Transactions					
Averages Items Per Transaction	Number TXNs Recorded	POS Time (Seconds)	Host & Comm Time (Seconds)	Total TXN Time (Seconds)	Total TXN Time (Minutes)
All Transactions	3	22.73	5.31	104.00	1.73
1 - 3 Items	2	23.14	5.06	64.00	1.07
4 - 7 Items	1	21.93	5.80	144.00	2.40
8 - 10 Items		N/A	N/A	N/A	N/A
10+ Items		N/A	N/A	N/A	N/A

Shortest/Longest Times	Items	POS Time (Seconds)	Host & Comm Time (Seconds)	Total TXN Time (Seconds)	Total TXN Time (Minutes)
Shortest POS Time	3	20.33			
Longest POS Time	1	25.94			
Shortest Host & Comm Time	1		4.59		
Longest Host & Comm Time	6		5.80		
Shortest Total TXN Time	3			64.00	1.07
Longest Total TXN Time	6			144.00	2.40

Exhibit A-8: Standard Transactions, No Issues Encountered (High-Speed)

Check Transactions			
Averages Items Per Transaction	Number TXNs Recorded	Total TXN Time (Seconds)	Total TXN Time (Minutes)
All Transactions	40	107.96	1.83
1 - 3 Items	13	47.57	.79
4 - 7 Items	9	84.00	1.40
8 - 10 Items	9	156.00	2.60
10+ Items	9	237.50	3.96

Shortest/Longest Times	Items	Total TXN Time (Seconds)	Total TXN Time (Minutes)
Shortest Total TXN Time	4	10	.17
Longest Total TXN Time	20	358	5.97

Exhibit A-9: Standard Transactions, No Issues Encountered (Checks)

Exception Transaction, Issues Encountered

The following provides data on times collected for transactions where the timer reported that an issue was encountered increasing the amount of time. Issues could include:

- Customer brought an invalid WIC item to the register.
- Cashier made a keying error.
- A restart of the transaction was required.
- A communication error was encountered.

Transaction times are reported by EBT Dial-Up, EBT, High-Speed, and Checks.

Dial-Up Transactions					
Averages Items Per Transaction	Number TXNs Recorded	POS Time (Seconds)	Host & Comm Time (Seconds)	Total TXN Time (Seconds)	Total TXN Time (Minutes)
All Transactions	3	37.75	5.69	364.71	6.08
1 - 3 Items	0				
4 - 7 Items	3	37.75	5.69	364.71	6.08
8 - 10 Items	0				
10+ Items	0				

Shortest/Longest Times	Items	POS Time (Seconds)	Host & Comm Time (Seconds)	Total TXN Time (Seconds)	Total TXN Time (Minutes)
Shortest POS Time	6	19.77			
Longest POS Time	5	60.28			
Shortest Host & Comm Time	6		5.39		
Longest Host & Comm Time	5		6.14		
Shortest Total TXN Time	6			115.00	1.92
Longest Total TXN Time	6			659.00	10.98

Exhibit A-10: Exception Transaction, Issues Encountered (Dial-Up)

High Speed Transactions					
Averages Items Per Transaction	Number TXNs Recorded	POS Time (Seconds)	Host & Comm Time (Seconds)	Total TXN Time (Seconds)	Total TXN Time (Minutes)
All Transactions	2	N/A	N/A	217.00	3.62
1 - 3 Items					
4 - 7 Items					
8 - 10 Items	1	N/A	N/A	240.00	4.00
10+ Items	1	N/A	N/A	194.00	3.23

Shortest/Longest Times	Items	POS Time (Seconds)	Host & Comm Time (Seconds)	Total TXN Time (Seconds)	Total TXN Time (Minutes)
Shortest POS Time	N/A	N/A			
Longest POS Time	N/A	N/A			
Shortest Host & Comm Time	N/A		N/A		
Longest Host & Comm Time	N/A		N/A		
Shortest Total TXN Time	12			194.00	3.23
Longest Total TXN Time	9			240.00	4.00

Exhibit A-11: Exception Transaction, Issues Encountered (High-Speed)

Check Transactions			
Averages Items Per Transaction	Number TXNs Recorded	Total TXN Time (Seconds)	Total TXN Time (Minutes)
All Transactions	5	219.62	2.86
1 - 3 Items	0		
4 - 7 Items	3	187.54	3.13
8 - 10 Items	1	123.47	2.06
10+ Items	1	412.00	6.87

Shortest/Longest Times	Items	Total TXN Time (Seconds)	Total TXN Time (Minutes)
Shortest Total TXN Time	1	96.57	1.61
Longest Total TXN Time	3	412.00	6.87

Exhibit A-12: Exception Transaction, Issues Encountered (Checks)

A.3 Customer Service Statistics

Calls to the SVS customer service line were relatively infrequent. The average call duration was approximately one minute. During the project (through the month of September) the total call count was as follows:

- 73 participant calls
- 5 clinic calls
- 3 retailer calls

Reasons for calls were typically for:

- Clients
  - Balance inquiries
  - Purchases
  - To report lost, stolen, or non functioning cards,
- Retailers
  - WIC EBT Deposits
- State/Clinic
  - CMS
  - HUI interface issues.

Customer Service was asked to report on the most common questions or requests that they received from callers. The following common questions or requests were cited.

- What is the balance on my card?

- I need to report my card lost or stolen.
- Are there any other stores besides the 3 stores when I can use my benefits?
- Why are my benefits not provided 3 months in advance?
- My card is damaged, what should I do?
- My items are not scanning, what should I do?
- I need the transactions history on my card.
- If I report my card lost or stolen, how quickly will it take affect?
- I entered my PIN incorrectly, what should I do?
- My benefits are not showing on my card, what should I do?

The clinic indicated that clients were sometimes referred back to the clinic from Customer Service. Customer Service stated that the two main reasons clients referred back to the clinics were because agents could not see benefits in their account or the client had forgotten their PIN.